HDR-XR500/XR500E/XR500V/XR500VE /XR520/XR520E/XR520V/XR520VE

RMT-835

SERVICE MANUAL

LEVEL 3

US Model
Canadian Model
AEP Model
UK Model
North European Model
E Model
Australian Model
Hong Kong Model
Chinese Model
Korea Model
Tourist Model
Japanese Model

Ver. 1.2 2009.06
Revision History

Revised-1

Replace the previously issued SERVICE MANUAL 9-852-656-12 with this Manual.

Photo: HDR-XR500V

Link

- MODEL INFORMATION TABLE
- PRINTED WIRING BOARDS
- REPAIR PARTS LIST
- SCHEMATIC DIAGRAMS

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

DIGITAL HD VIDEO CAMERA RECORDER

SONY

HDR-XR500/XR500E/XR500V/XR500VE/
XR520/XR520E/XR520V/XR520VE_L3

9-852-656-13

Sony EMCS Co.

2009F0800-1
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Model information table

Model	HDR-XR500	HDR-XR500E	HDR-XR500V	HDR-XR500VE
Destination	E, KR, JE	NE, E, CH, HK, JE	US, CND, J	AEP, UK, AUS
Color system	NTSC	PAL	NTSC	PAL
GPS function	Not built in	Not built in	Built in	Built in
Hard disk	120GB	120GB	120GB	120GB

Model	HDR-XR520	HDR-XR520E	HDR-XR520V	HDR-XR520VE
Destination	E, KR, JE	NE, E, CH, HK, JE	US, CND, J	AEP, UK, AUS
Color system	NTSC	PAL	NTSC	PAL
GPS function	Not built in	Not built in	Built in	Built in
Hard disk	240GB	240GB	240GB	240GB

- Abbreviation
  AUS : Australian model
  CH : Chinese model
  CND : Canadian model
  HK : Hong Kong model
  J : Japanese model
  JE : Tourist model
  KR : Korea model
  NE : North European model

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type.
Dispose of used batteries according to the instructions.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈSES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPÉMENTS PUBLIÉS PAR SONY.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, through functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the B+ voltage to see it is at the values specified.
6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270˚C during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

Unleaded solder

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

注意
電池の交換は，正しく行わないと破裂する恐れがあります。電池を交換する場合には必ず同じ型名の電池又は同等品と交換してください。
使用済み電池は，取扱指示に従って処分してください。

サービス，点検時には次のことにご注意下さい。

1. **注意事項をお守りください。**
   サービスのとき特に注意を要する個所については，キャビネット，シャーシ，部品などにラベルや捺印で注意事項を表示しています。これらの注意書き及び取扱説明書等の注意事項を必ずお守り下さい。
2. **指定部品のご使用を**
   セットの部品は難燃性や耐電圧など安全上の特性を持ったものとなっています。従って交換部品は，使用されていたものと同じ特性の部品を使用して下さい。特に回路図，部品表に⚠印で指定されている安全上重要な部品は必ず指定のものをご使用下さい。
3. **部品の取付けや配線の引きまわしはもとどおりに**
   安全上，チューブやテープなどの絶縁材料を使用したり，プリント基板から浮かして取付けた部品があります。また内部配線は引きまわしやクランパによって発熱部品や高圧部品に接近しないよう配慮されていますので，これらは必ずもとどおりにして下さい。
4. **サービス後は安全点検を**
   サービスのために取外したネジ，部品，配線がもとどおりになっているか，またサービスした個所の周辺を劣化させてしまったところがないかなどを点検し，安全性が確保されていることを確認して下さい。
5. **チップ部品交換時の注意**
   - 取外した部品は再使用しないで下さい。
   - タンタルコンデンサのマイナス側は熱に弱いため交換時は注意して下さい。
6. **フレキシブルプリント基板の取扱いについて**
   - コテ先温度を270 ℃前後にして行なって下さい。
   - 同一パターンに何度もコテ先を当てないで下さい。（３回以内）
   - パターンに力が加わらないよう注意して下さい。
7. **無鉛半田について**
   無鉛半田を使用している基板には，無鉛（Lead Free）を意味するレッドフリーマークがプリントされています。
   （注意：基板サイズによっては，無鉛半田を使用していてもレッドフリーマークがプリントされていないものがあります）
   ：レッドフリーマーク
   無鉛半田には，以下の特性があります。
   - 融点が従来の半田よりも約40 ℃高い。
     従来の半田こてをそのまま使用することは可能ですが，少し長めにこてを当てる必要があります。
     温度調節機能のついた半田こてを使用する場合，約350 ℃に設定して下さい。
     注意：半田こてを長く当てすぎると，基板のパターン（銅箔）がはがれてしまうことがありますので，注意して下さい。
   - 粘性が強い
     従来の半田よりも粘性が強いため，IC端子などが半田ブリッジしないように注意して下さい。
   - 従来の半田と混ぜて使用可能
     無鉛半田には無鉛半田を追加するのが最適ですが，従来の半田を追加しても構いません。

4-2. SCHEMATIC DIAGRAMS

Link

CM-103 BOARD (CMOS IMAGER)	VC-557 BOARD(14/14) (CONNECTOR TO LENS BARRIER BLOCK)
VC-557 BOARD(1/14) (CONNECTORS)	MD-143 BOARD(1/11) (SOC)
VC-557 BOARD(2/14) (SIGNAL PROCESS 1)	MD-143 BOARD(2/11) (HDMI PROCESSOR)
VC-557 BOARD(3/14) (SIGNAL PROCESS 2)	MD-143 BOARD(3/11) (HDMI TRANSMITTER)
VC-557 BOARD(4/14) (DDR SDRAM)	MD-143 BOARD(4/11) (AUDIO/VIDEO PROCESSOR)
VC-557 BOARD(5/14) (CPU (CAMERA SIGNAL PROCESS, CAMERA CONTROL))	MD-143 BOARD(5/11) (MIC AMP, HEADPHONES AMP)
VC-557 BOARD(6/14) (CPU (CAMERA SIGNAL PROCESS, CAMERA CONTROL))	MD-143 BOARD(6/11) (EVF DRIVE)
VC-557 BOARD(7/14) (CPU (CAMERA SIGNAL PROCESS, CAMERA CONTROL))	MD-143 BOARD(7/11) (DISPLAY SERIAL INTERFACE TRANSMITTER)
VC-557 BOARD(8/14) (SDRAM, NAND FLASH)	MD-143 BOARD(8/11) (CONNECTORS)
VC-557 BOARD(9/14) (PCI PROCESSOR)	MD-143 BOARD(9/11) (DC IN)
VC-557 BOARD(10/14) (DDR SDRAM)	MD-143 BOARD(10/11) (DC/DC CONVERTER, LANC DRIVE)
VC-557 BOARD(11/14) (G SENSOR)	MD-143 BOARD(11/11) (LANC PROCESSOR)
VC-557 BOARD(12/14) (ZOOM AND FOCUS DRIVE)	PD-381 BOARD (LCD DRIVE)
VC-557 BOARD(13/14) (STEADYSHOT PROCESSOR)	FR-298 BOARD (SIRCS RECEIVER, PITCH/YAW SENSOR)

COMMON NOTE FOR SCHEMATIC DIAGRAMS

4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS (ENGLISH)

THIS NOTE IS COMMON FOR SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

(For schematic diagrams)

- All capacitors are in µF unless otherwise noted. pF : µµF. 50 V or less are not indicated except for electrolytics and tantalums.
- Chip resistors are 1/10 W unless otherwise noted. kΩ=1000 Ω, MΩ=1000 kΩ.
- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, Because it is damaged by the heat.
- Some chip part will be indicated as follows.

  Example C541 22U TA A — Kinds of capacitor / Case size
  L452 10UH 2520 — External dimensions (mm)
- Constants of resistors, capacitors, ICs and etc with XX indicate that they are not used.
  In such cases, the unused circuits may be indicated.
- Parts with ★ differ according to the model/destination.
  Refer to the mount table for each function.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- Signal name
  XEDIT → $\overline{\text{EDIT}}$ PB/XREC → PB/$\overline{\text{REC}}$
- : non flammable resistor
- : fusible resistor
- : panel designation
- : B+ Line
- : B– Line
- : IN/OUT direction of (+,–) B LINE.
- : adjustment for repair.

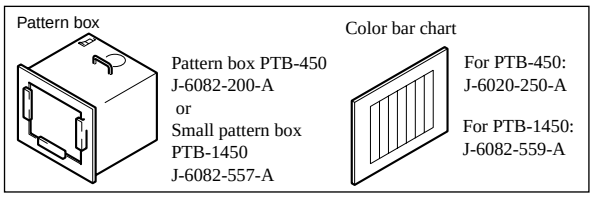
(Measuring conditions voltage and waveform)

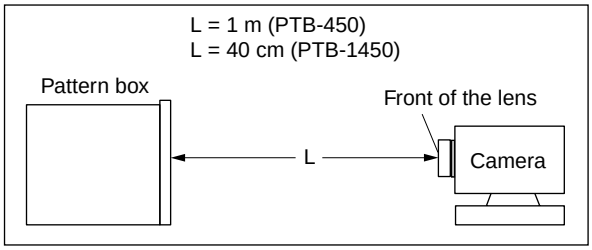
- Voltages and waveforms are measured between the measurement points and ground when camera shoots color bar chart of pattern box. They are reference values and reference waveforms.
  (VOM of DC 10 MΩ input impedance is used)
- Voltage values change depending upon input impedance of VOM used.)

Precautions for Replacement of Imager

- If the imager has been replaced, carry out all the adjustments for the camera section.
- As the imager may be damaged by static electricity from its structure, handle it carefully like for the MOS IC.
  In addition, ensure that the receiver is not covered with dusts nor exposed to strong light.

1. Connection





2. Adjust the distance so that the output waveform of Fig. a and the Fig. b can be obtain.

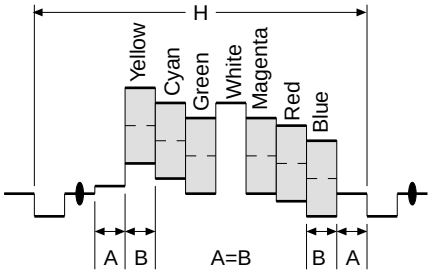


Fig. a (Video output terminal output waveform)

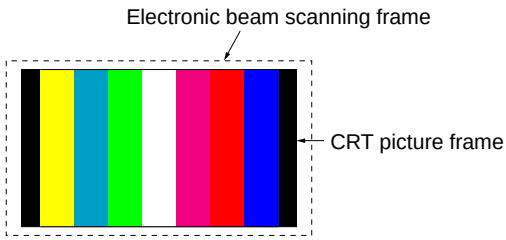


Fig.b (Picture on monitor TV)

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifie.

(JAPANESE)

回路図共通ノート
（他に必要なノートは各ブロックに記載してあります）
【回路図ノート】

- ケミコン，タンタルを除くコンデンサで，耐圧50V以下のものはその耐圧を省略。単位はすべてμF（pはpF）。
- チップ抵抗で指示のないものは，1／10W以下。
  kΩ＝1000Ω，MΩ＝1000kΩ
- チップ部品交換時の注意
  取り外した部品は再使用せず，未使用の部品をご使用ください。
  タンタルコンデンサのマイナス側は熱に弱いため注意してください。
- チップ部品には下記のように表示したものがあります。

例	C 541	L 452
	22U	10UH
	TA A	2520
	↑ ↑	↑
	種類 ケースサイズ	外形寸法（mm）

- 抵抗，コンデンサ，ICなど定数にXXがあるものは，使用していない事を示しています。このため，使用していない回路が記載されている事があります。
- ★印のある部品は，機種などにより異なりますので機能別マウント一覧表を参照してください。
- 可変抵抗と半固定抵抗で，B特性の表示を省略。
- 信号名表記について，下記のような場合があります。
  XEDIT → $\overline{\text{EDIT}}$　　PB/XREC → PB/$\overline{\text{REC}}$
- は不燃性抵抗。
- はヒューズ抵抗。
- はパネル表示名称。
- はB＋ライン。
- はB－ライン。
- はBライン（＋，－）の入出力方向を示す。
- は調整名称。

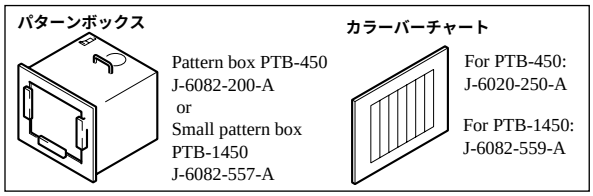
【電圧・波形測定条件ノート】

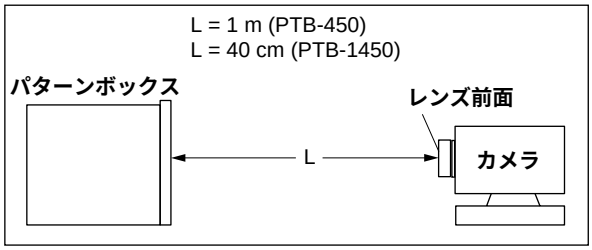
- 電圧値及び信号波形はパターンボックスのカラーバーチャートを被写体としたときの測定点対アース間の参考値。
  （デジタルマルチメータ；入力インピーダンス　DC10MΩ使用）
- 使用テスタの入力インピーダンスにより電圧値が多少異なります。

イメージャ交換時の注意

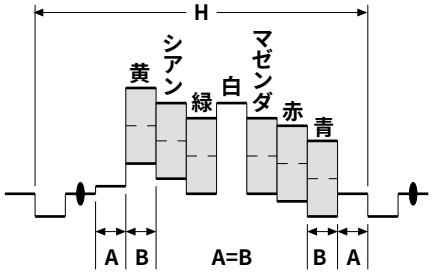
- イメージャを交換した場合は，カメラ部の全調整を行ってください。
- イメージャは構造上，静電気により破壊される恐れがあるため，MOS ICと同様に注意して取り扱ってください。
  また，受光部にはゴミの付着，および強い光がはいることのないように注意してください。

1. 接続図

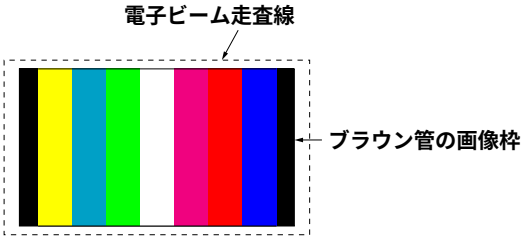




2. 図a及び図bの波形が得られるように画枠調整して下さい。



図a（映像入出力端子出力波形）



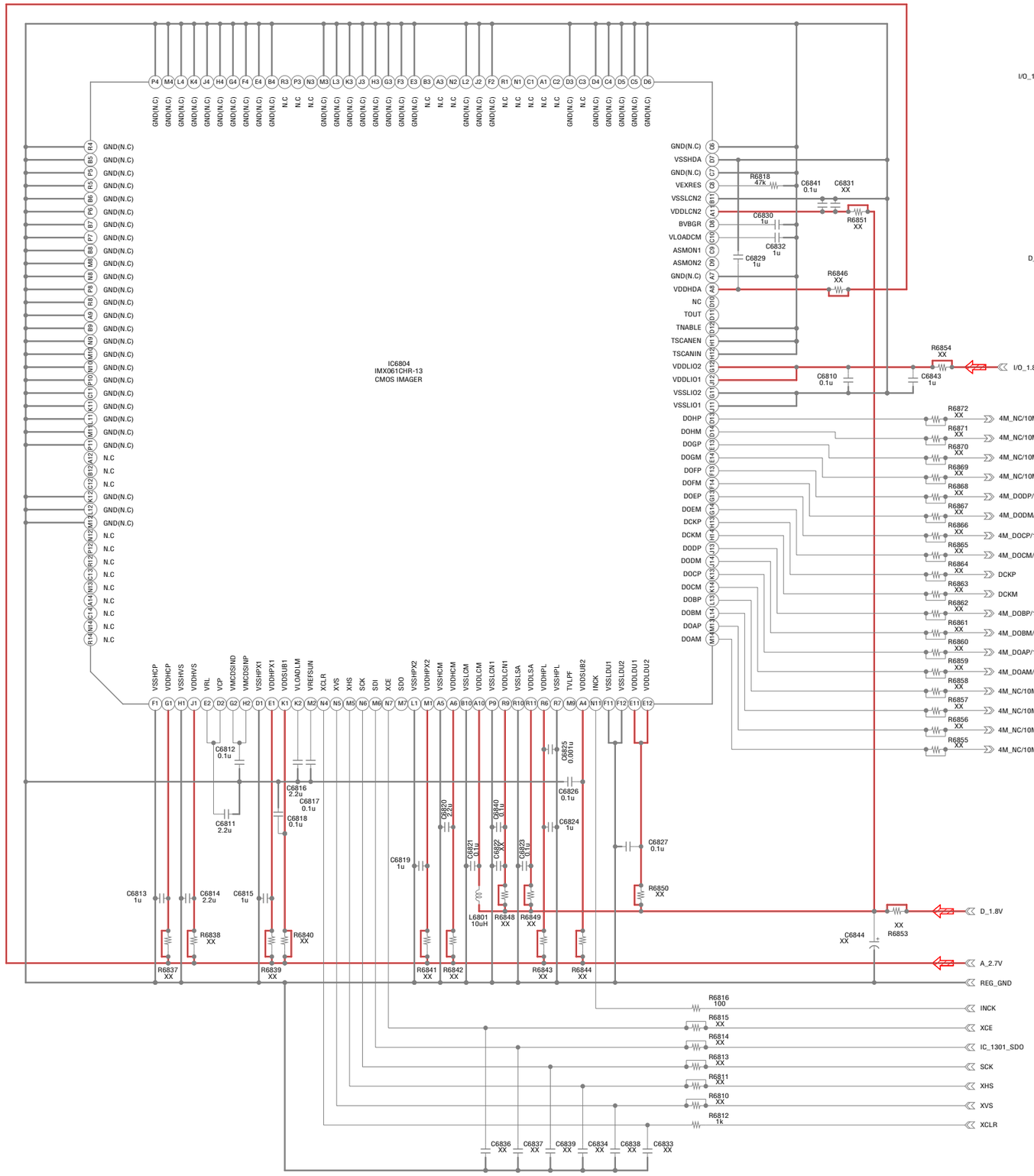
図b（テレビモニタの映像）

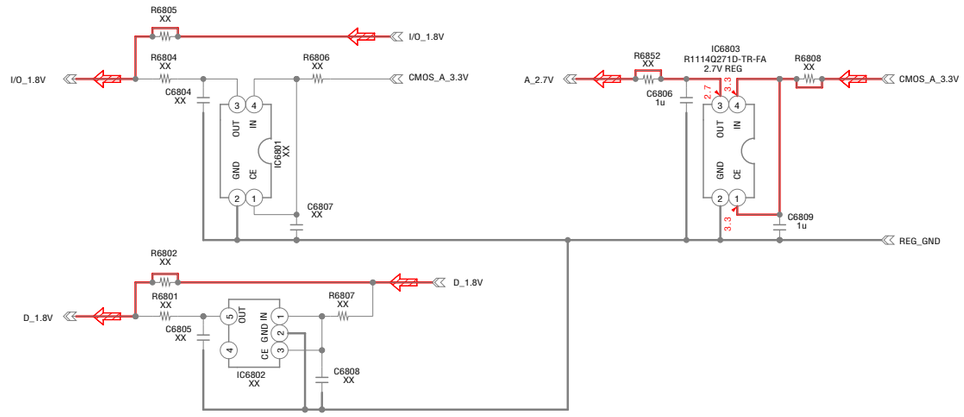
⚠印の部品，または⚠印付きの点線で囲まれた部品は，安全性を維持するために重要な部品です。
従って交換時は，必ず指定の部品を使用して下さい。

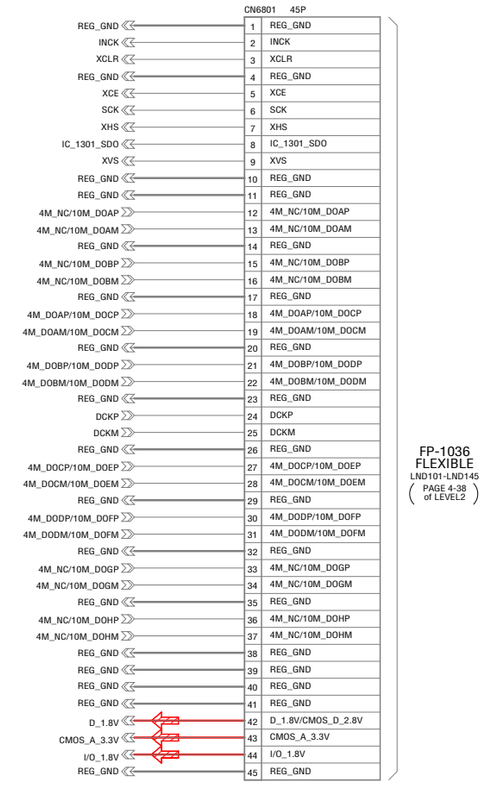
お願い
図面番号で部品を指定するときは基板名又はブロックを併せて指定して下さい。

Note: CM-103 complete board and IC6804 (CMOS imager) are not supplied, but they are included in CMOS block assy (1350).

Note: Voltages of IC6804 can not be measured, because this is mounted on the side of the lens.







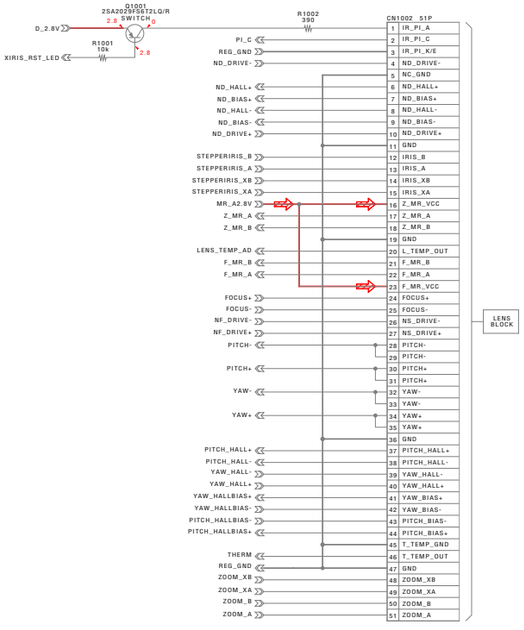
FP-1036
FLEXIBLE
LND101-LND145
(PAGE 4-38 of LEVEL2)

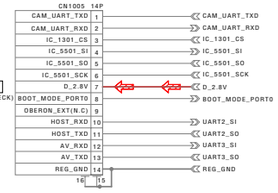
CM-103 BOARD

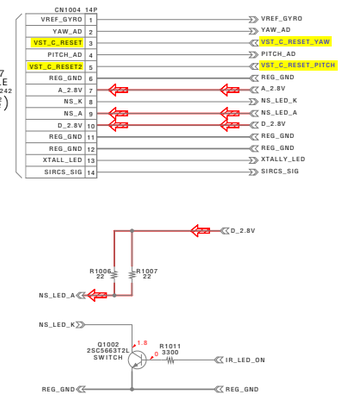
CMOS IMAGER

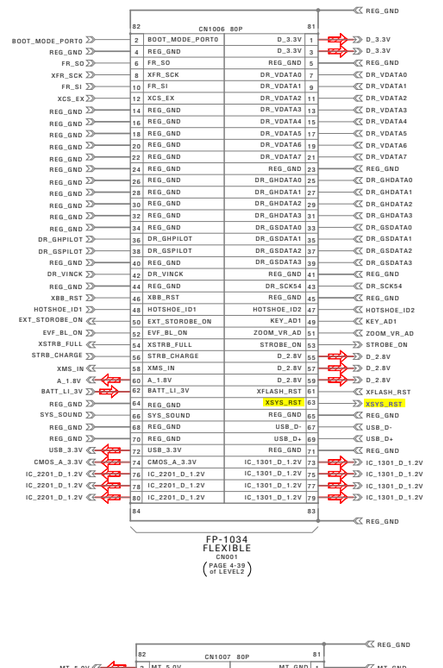
XX MARK:NO MOUNT

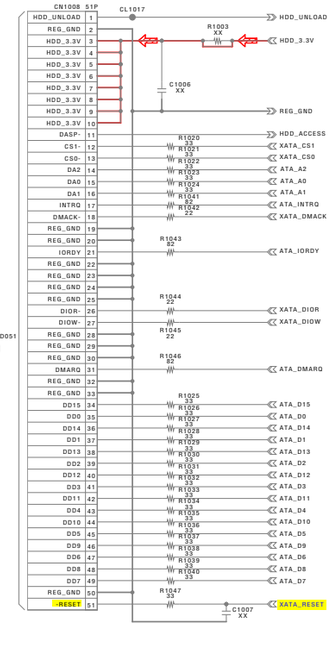
NO MARK:REC/PB MODE

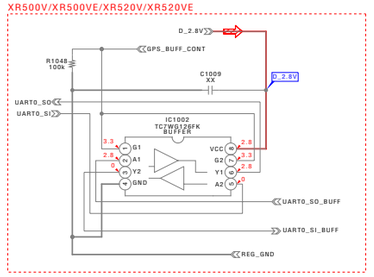


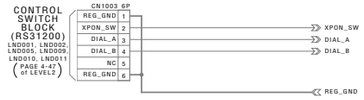


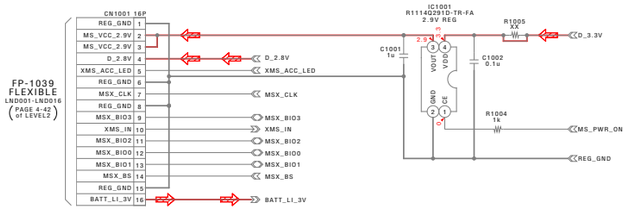


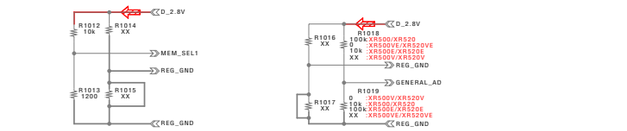










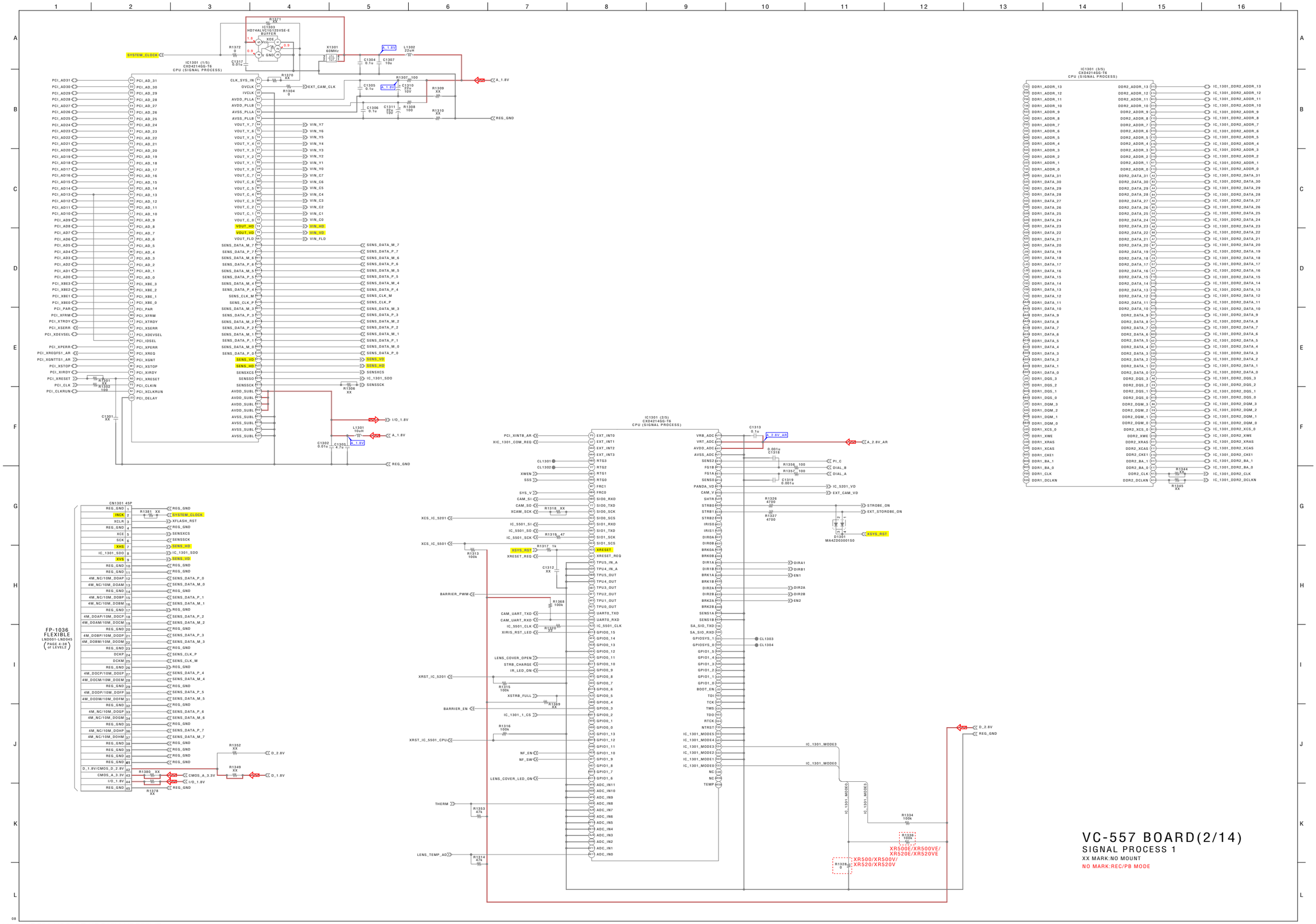


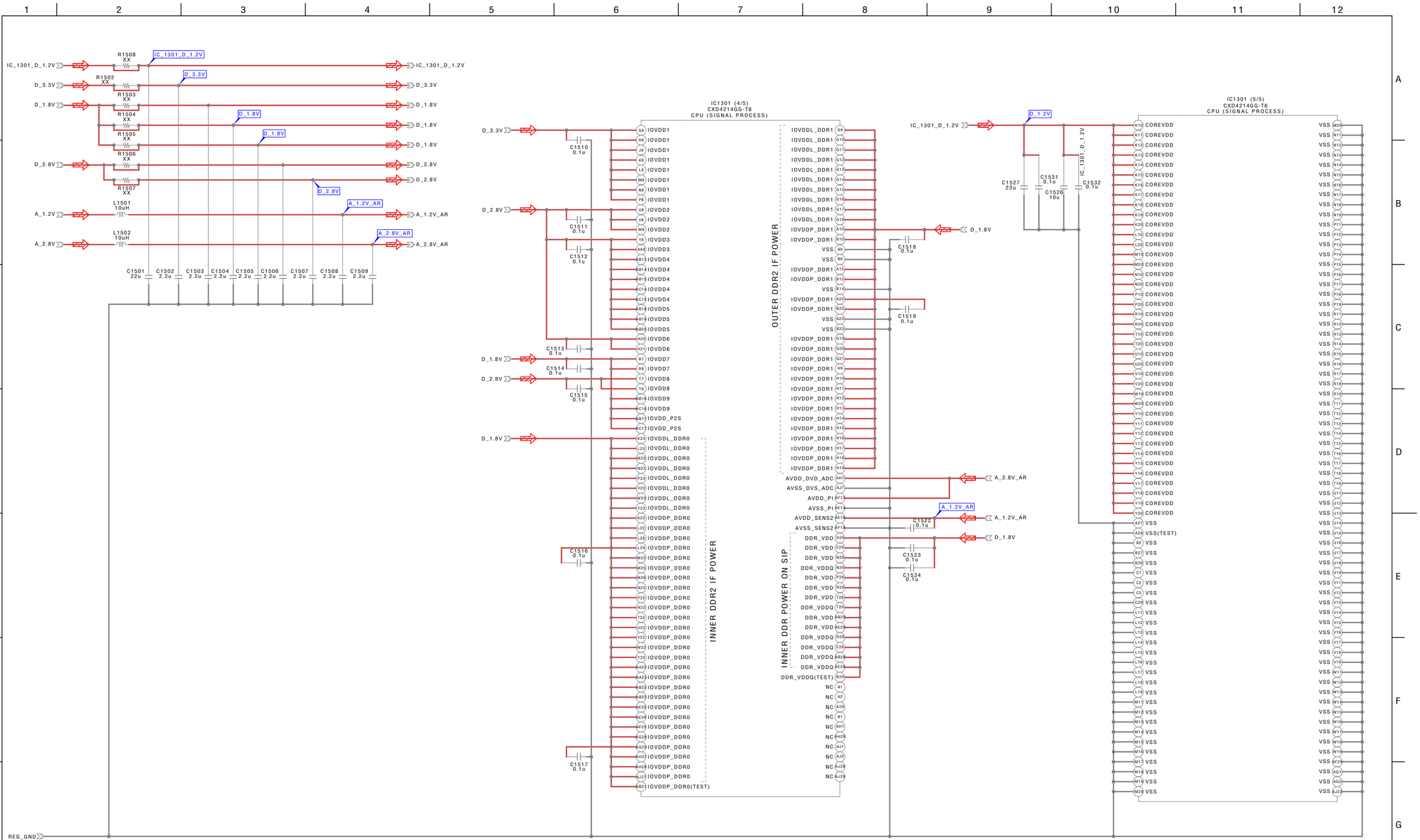
VC-557 BOARD(1/14)

CONNECTORS

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

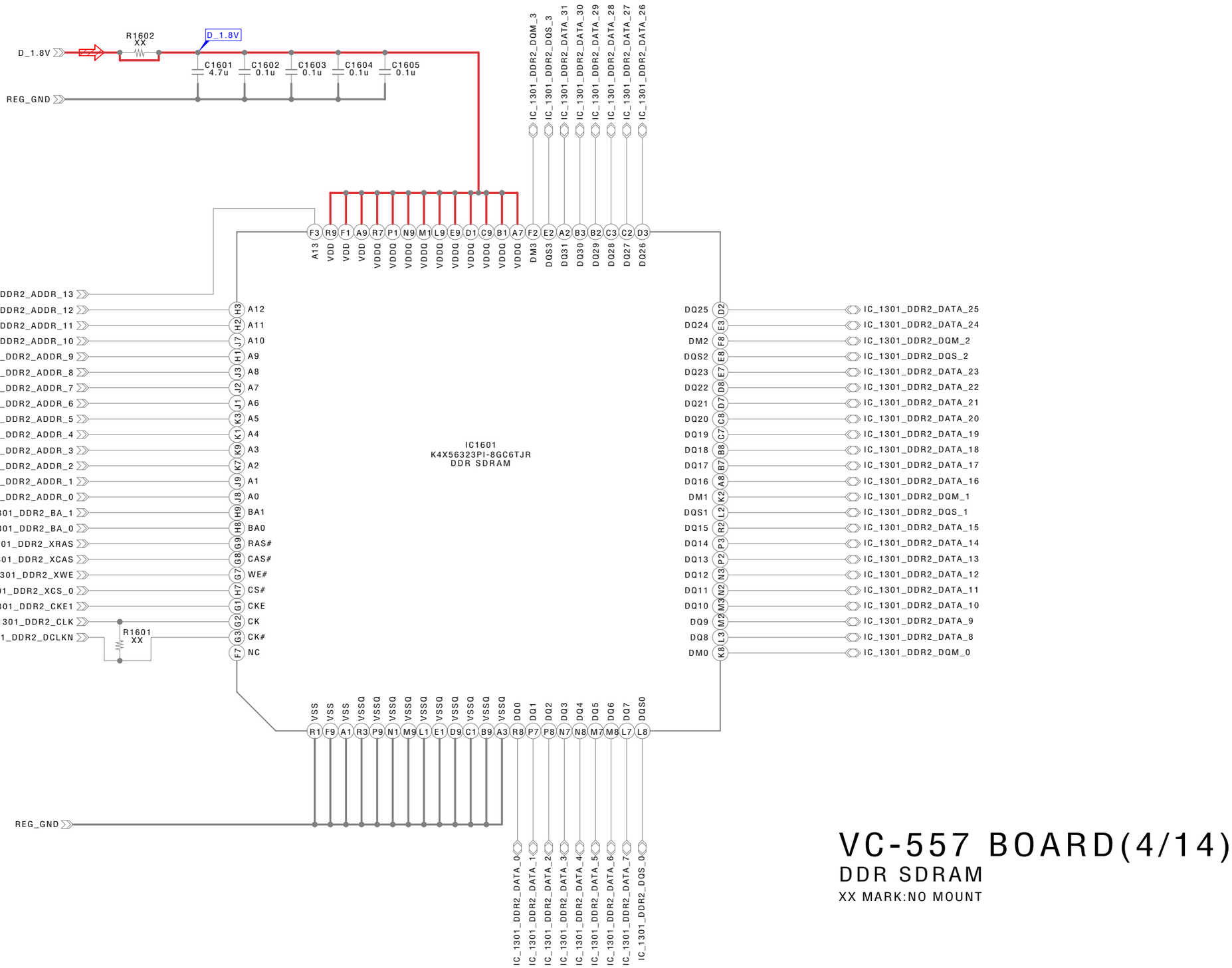

IC1301 (1/5)
CXD4214GG-T6
CPU (SIGNAL PROCESS)
IC1303
HD74ALVC1G125VSE-E
BUFFER
SYSTEM_CLOCK
X1301
60MHz
L1302
22uH
A_1.8V
A_2.8V_AR
A_1.2V
REG_GND
EXT_CAM_CLK
VIN_Y7
VIN_Y6
VIN_Y5
VIN_Y4
VIN_Y3
VIN_Y2
VIN_Y1
VIN_Y0
VIN_C7
VIN_C6
VIN_C5
VIN_C4
VIN_C3
VIN_C2
VIN_C1
VIN_C0
VIN_HD
VIN_VD
VIN_FLD
SENS_VD
SENS_HD
SENSXCS
IC_1301_SDO
SENSSCK
I/O_1.8V
CN1301 45P
FP-1036
FLEXIBLE
LND001-LND045
(PAGE 4-38
of LEVEL2)
CMOS_A_3.3V
I/O_1.8V
D_2.8V
D_1.8V
IC1301 (3/5)
CXD4214GG-T6
CPU (SIGNAL PROCESS)
IC1301 (2/5)
CXD4214GG-T6
CPU (SIGNAL PROCESS)
PI_C
DIAL_B
DIAL_A
IC_5201_VD
EXT_CAM_VD
STROBE_ON
EXT_STOROBE_ON
XSYS_RST
D1301
MA4ZD03001S0
DIRA1
DIRB1
EN1
DIR2A
DIR2B
EN2
CL1303
CL1304
IC_1301_MODE3
IC_1301_MODE0
XR500E/XR500VE/
XR520E/XR520VE
XR500/XR500V/
XR520/XR520V
VC-557 BOARD(2/14)
SIGNAL PROCESS 1
XX MARK:NO MOUNT
NO MARK:REC/PB MODE



VC-557 BOARD(3/14)

SIGNAL PROCESS 2

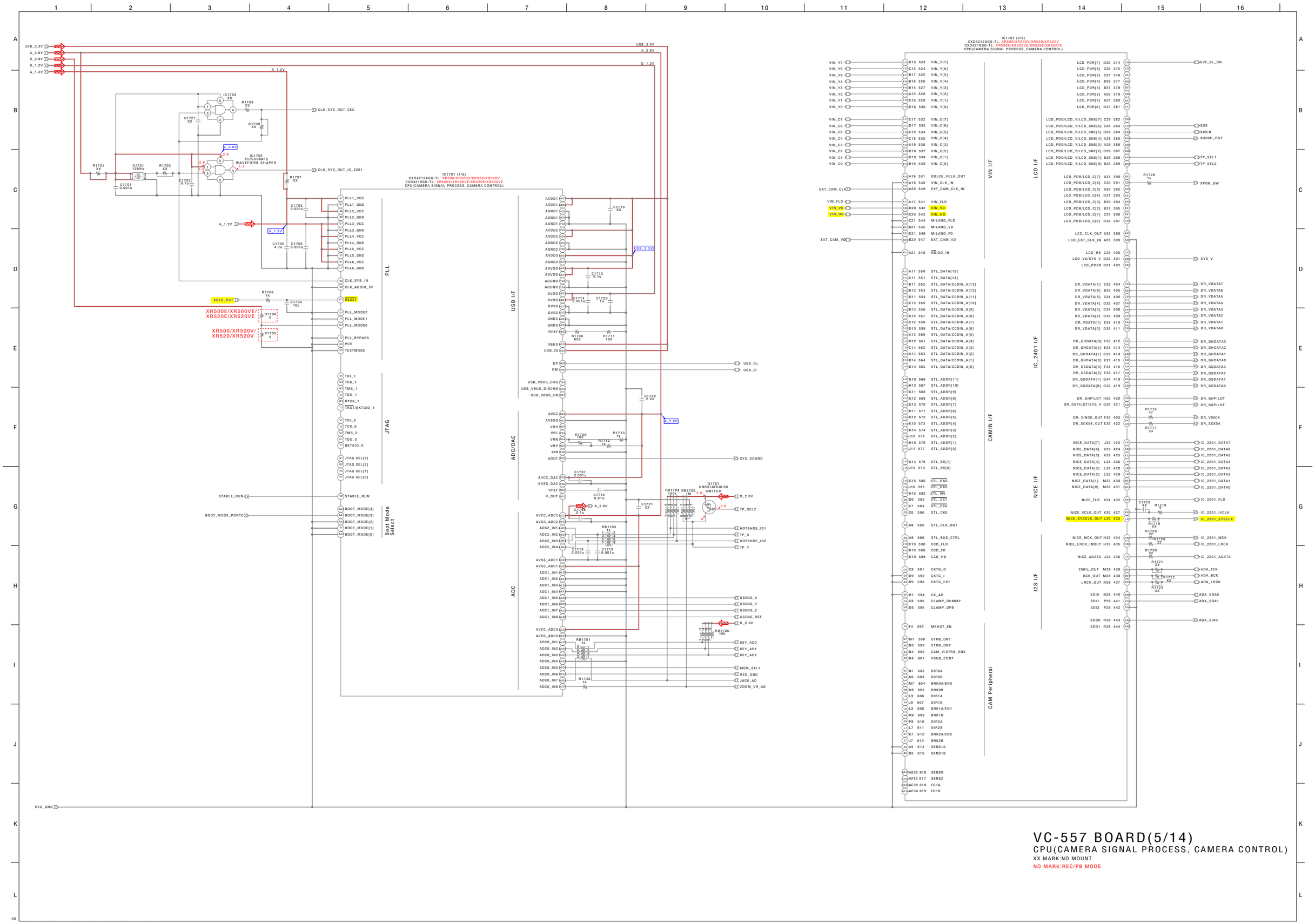
XX MARK:NO MOUNT

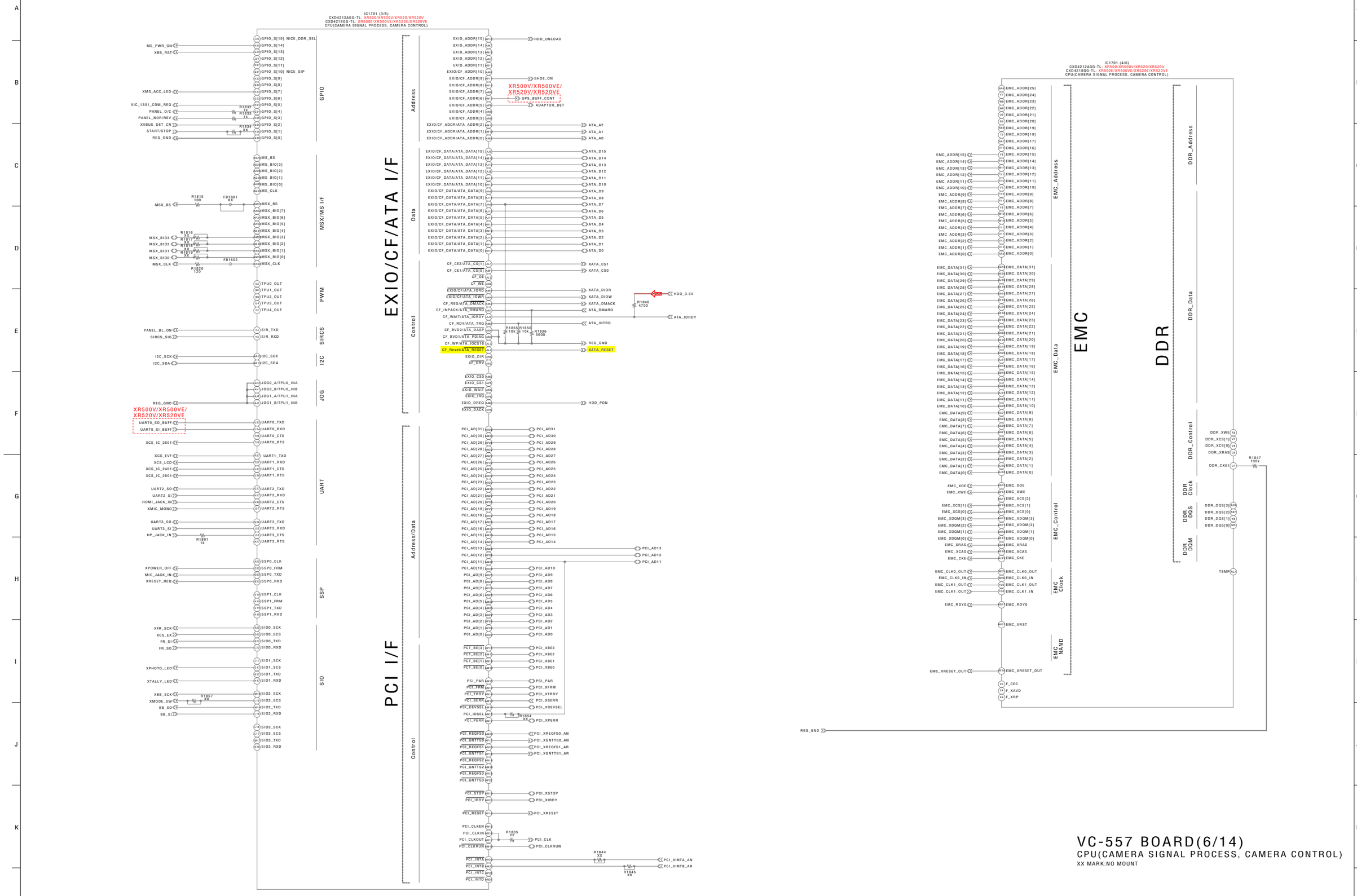


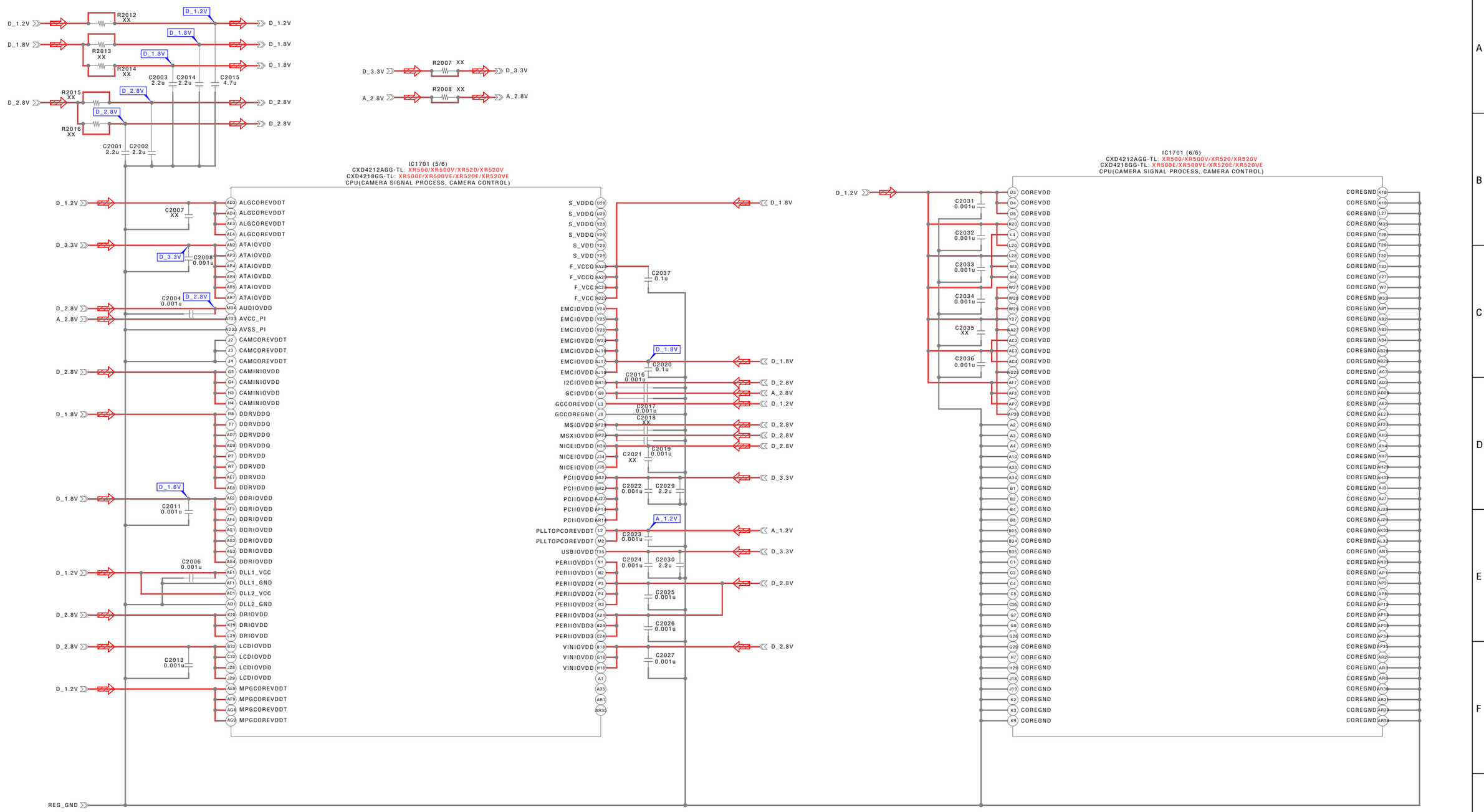
VC-557 BOARD(4/14)

DDR SDRAM

XX MARK:NO MOUNT


IC1701 (1/6)
CXD4212AGG-TL: XR500/XR500V/XR520/XR520V
CXD4218GG-TL: XR500E/XR500VE/XR520E/XR520VE
CPU(CAMERA SIGNAL PROCESS, CAMERA CONTROL)
IC1701 (2/6)
CXD4212AGG-TL: XR500/XR500V/XR520/XR520V
CXD4218GG-TL: XR500E/XR500VE/XR520E/XR520VE
CPU(CAMERA SIGNAL PROCESS, CAMERA CONTROL)
PLL
USB I/F
JTAG
ADC/DAC
ADC
Boot Mode Select
VIN I/F
LCD I/F
IC_2401 I/F
CAMIN I/F
NICE I/F
I2S I/F
CAM Peripheral
XR500E/XR500VE/XR520E/XR520VE
XR500/XR500V/XR520/XR520V
IC1705 XX
IC1702 TC7SG08AFS WAVEFORM SHAPER
X1701 12MHz
USB_3.3V
A_2.8V
D_2.8V
D_1.2V
A_1.2V
REG_GND
CLK_SYS_OUT_CEC
CLK_SYS_OUT_IC_2201
XSYS_RST
STABLE_RUN
BOOT_MODE_PORT0
USB_D+
USB_D-
SYS_SOUND
HOTSHOE_ID1
HOTSHOE_ID2
TP_X
TP_Y
TP_SEL2
GSENS_X
GSENS_Y
GSENS_Z
GSENS_REF
KEY_AD0
KEY_AD1
KEY_AD2
MEM_SEL1
REG_GND
JACK_AD
ZOOM_VR_AD
EVF_BL_ON
SSS
XWEN
XHDMI_RST
TP_SEL1
XPON_SW
SYS_V
IC_2201_DATA7
IC_2201_DATA6
IC_2201_DATA5
IC_2201_DATA4
IC_2201_DATA3
IC_2201_DATA2
IC_2201_DATA1
IC_2201_DATA0
IC_2201_FLD
IC_2201_IVCLK
IC_2201_SYSCLK
IC_2201_MCK
IC_2201_LRCK
IC_2201_ADATA
ADA_FCK
ADA_BCK
ADA_LRCK
ADA_SOA0
ADA_SOA1
ADA_SIA0
DR_VDATA7
DR_VDATA6
DR_VDATA5
DR_VDATA4
DR_VDATA3
DR_VDATA2
DR_VDATA1
DR_VDATA0
DR_GHDATA3
DR_GHDATA2
DR_GHDATA1
DR_GHDATA0
DR_GSDATA3
DR_GSDATA2
DR_GSDATA1
DR_GSDATA0
DR_GHPILOT
DR_GSPILOT
DR_VINCK
DR_SCK54
VC-557 BOARD(5/14)
CPU(CAMERA SIGNAL PROCESS, CAMERA CONTROL)
XX MARK:NO MOUNT
NO MARK:REC/PB MODE


IC1701 (3/6)
CXD4212AGG-TL: XR500/XR500V/XR520/XR520V
CXD4218GG-TL: XR500E/XR500VE/XR520E/XR520VE
CPU(CAMERA SIGNAL PROCESS, CAMERA CONTROL)
GPIO
MSX/MS I/F
PWM
SIRCS
I2C
JOG
UART
SSP
SIO
EXIO/CF/ATA I/F
PCI I/F
Address
Data
Control
Address/Data
XR500V/XR500VE/
XR520V/XR520VE
XR500V/XR500VE/
XR520V/XR520VE
HDD_UNLOAD
SHOE_ON
GPS_BUFF_CONT
ADAPTOR_DET
HDD_3.3V
HDD_PDN
REG_GND
EMC
DDR
EMC_Address
EMC_Data
EMC_Control
EMC Clock
EMC NAND
DDR_Address
DDR_Data
DDR_Control
DDR Clock
DDR DQS
DDR DQM
VC-557 BOARD(6/14)
CPU(CAMERA SIGNAL PROCESS, CAMERA CONTROL)
XX MARK:NO MOUNT

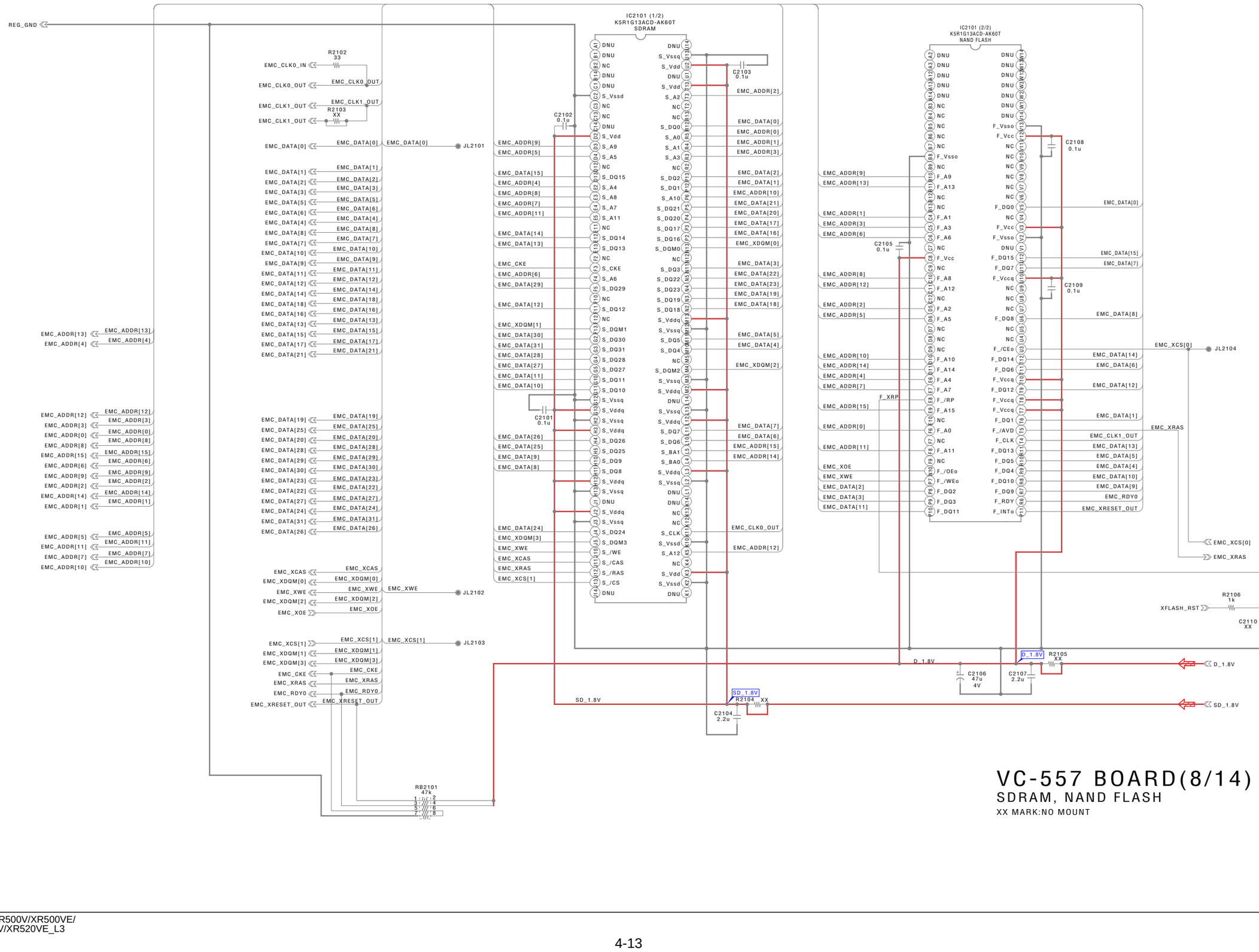


VC-557 BOARD(7/14)

CPU(CAMERA SIGNAL PROCESS, CAMERA CONTROL)

XX MARK:NO MOUNT

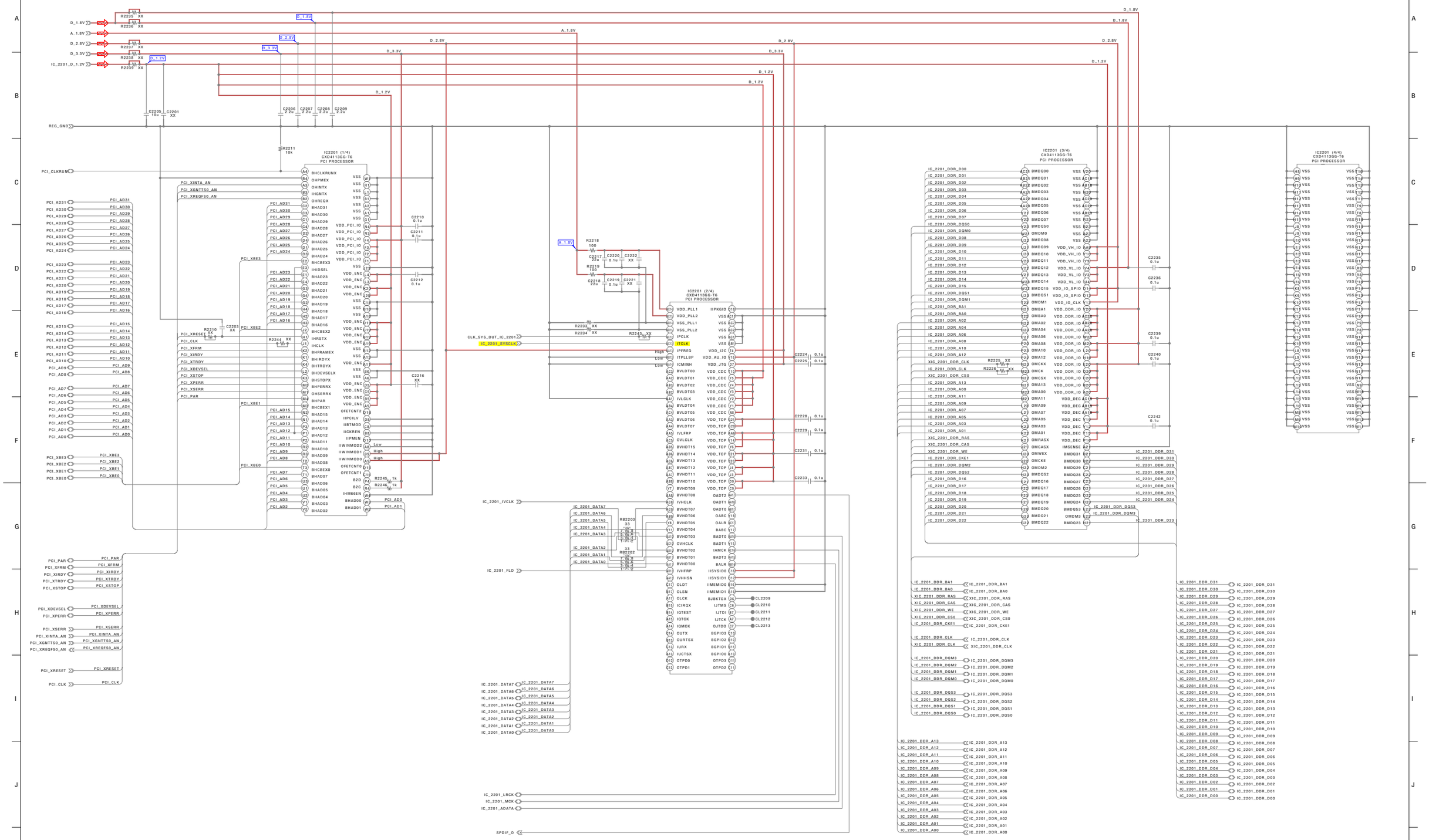
Note: IC2101 is not supplied, but this is included in VC-557 complete board (service).

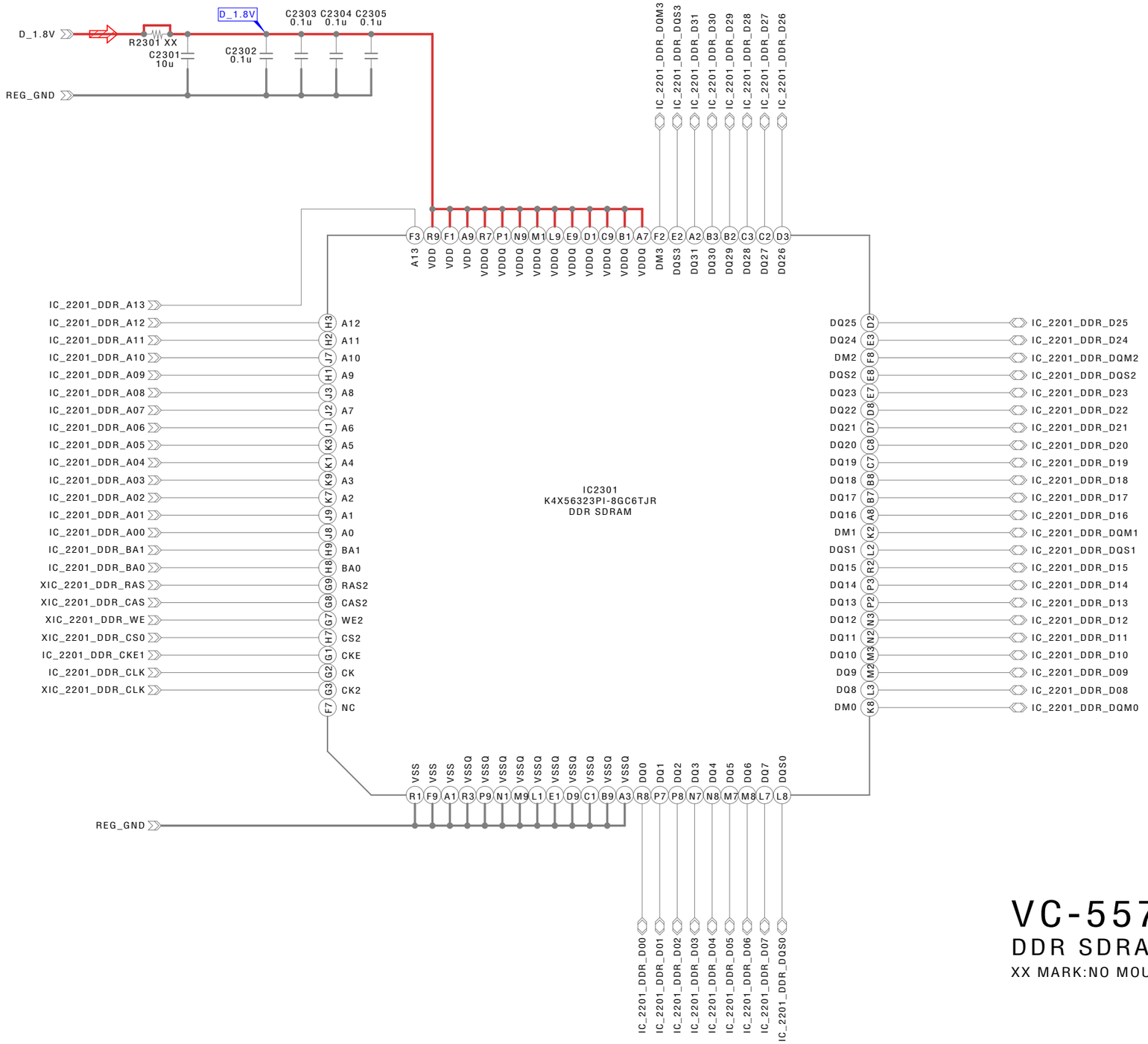


VC-557 BOARD(8/14)

SDRAM, NAND FLASH

XX MARK:NO MOUNT

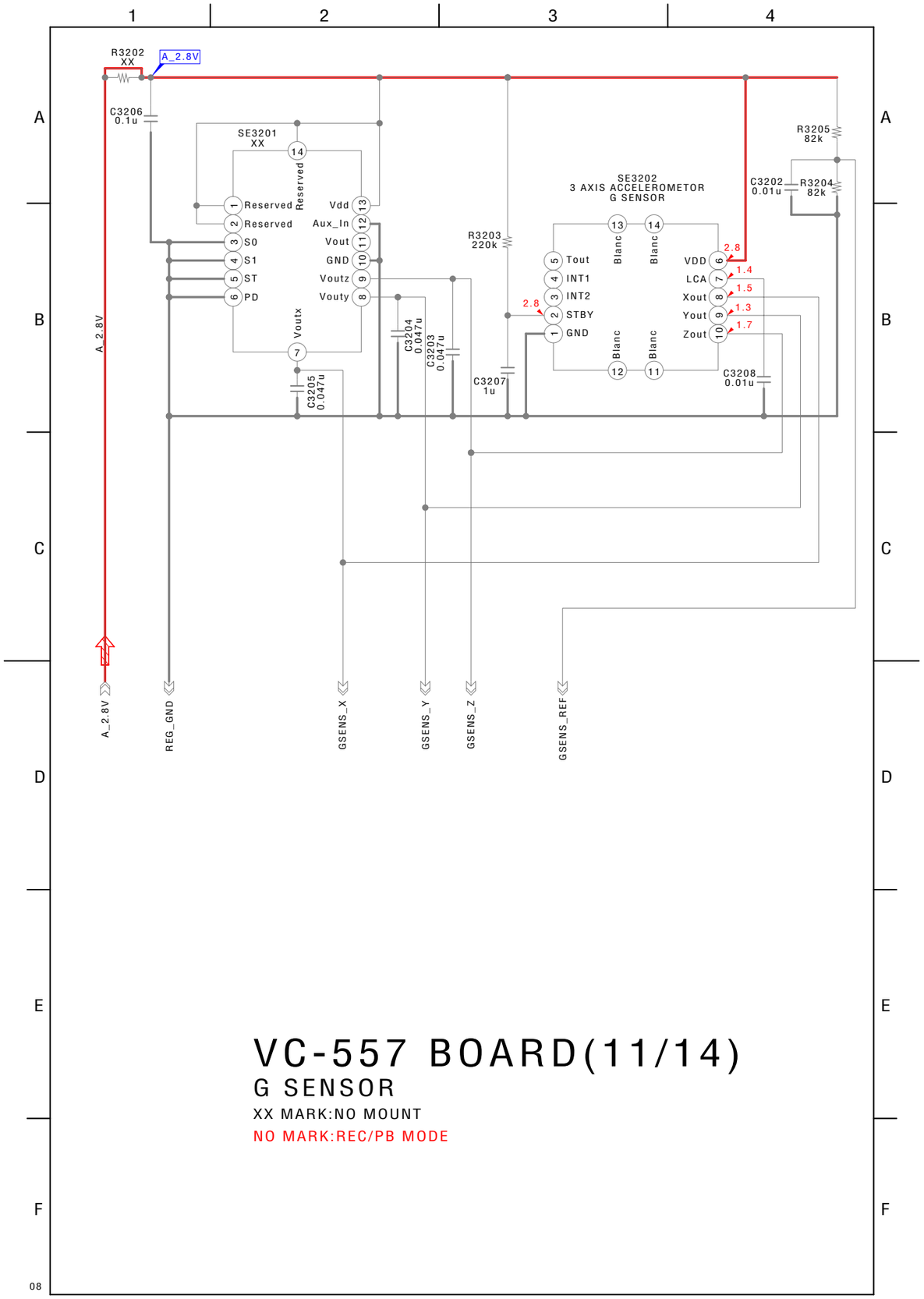

IC2201 (1/4)
CXD4113GG-T6
PCI PROCESSOR
IC2201 (2/4)
CXD4113GG-T6
PCI PROCESSOR
IC2201 (3/4)
CXD4113GG-T6
PCI PROCESSOR
IC2201 (4/4)
CXD4113GG-T6
PCI PROCESSOR
D_1.8V
D_2.8V
D_3.3V
D_1.2V
A_1.8V
REG_GND
PCI_CLKRUN
PCI_XINTA_AN
PCI_XGNTTSO_AN
PCI_XREQFSO_AN
PCI_XRESET
PCI_CLK
PCI_XFRM
PCI_XIRDY
PCI_XTRDY
PCI_XSTOP
PCI_XDEVSEL
PCI_XPERR
PCI_XSERR
PCI_PAR
PCI_XBE3
PCI_XBE2
PCI_XBE1
PCI_XBE0
IC_2201_IVCLK
IC_2201_FLD
IC_2201_LRCK
IC_2201_MCK
IC_2201_ADATA
SPDIF_O
CLK_SYS_OUT_IC_2201
IC_2201_SYSCLK
VC-557 BOARD(9/14)
PCI PROCESSOR
XX MARK:NO MOUNT



VC-557 BOARD(10/14)

DDR SDRAM

XX MARK:NO MOUNT



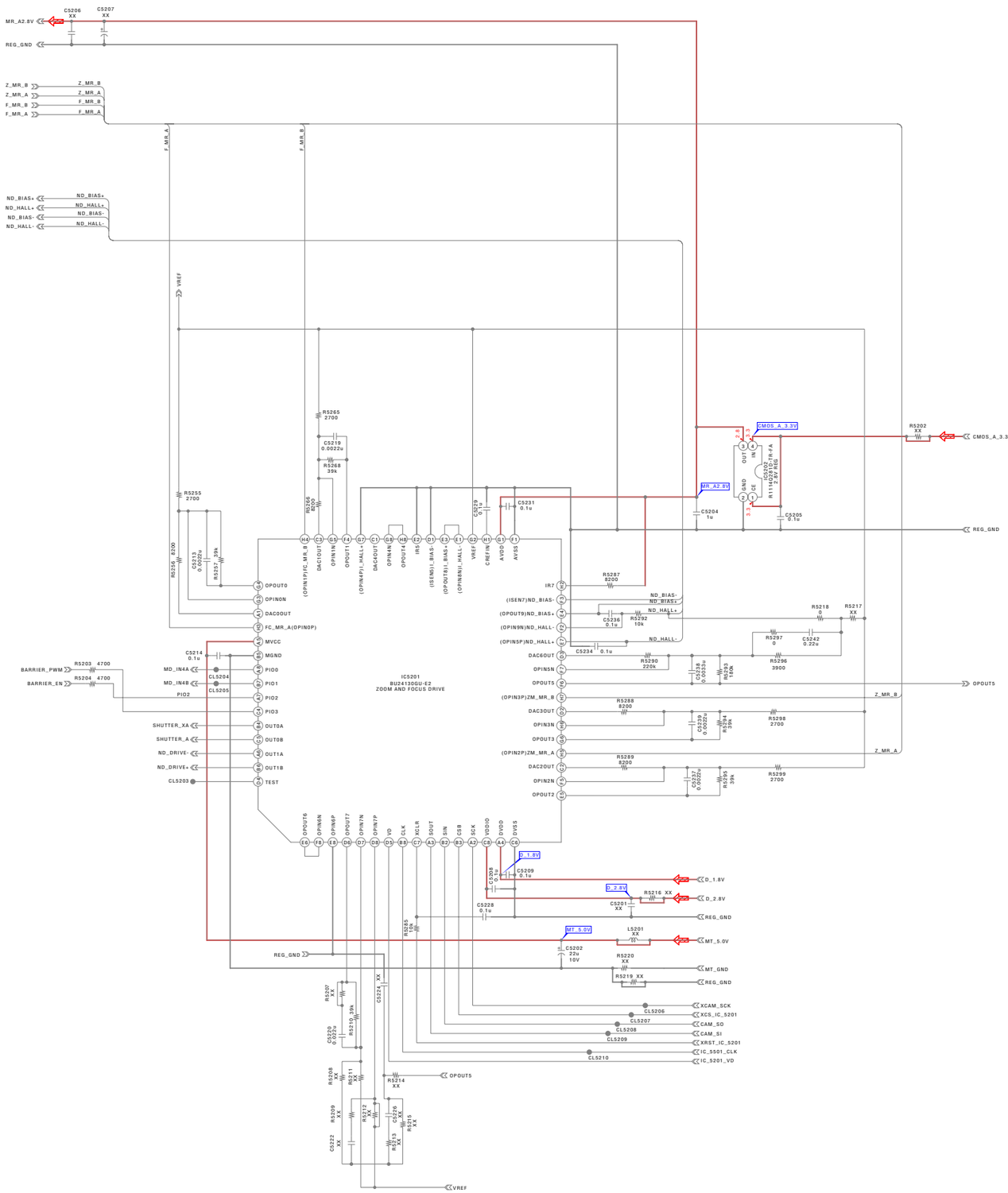
VC-557 BOARD(11/14)

G SENSOR

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

08

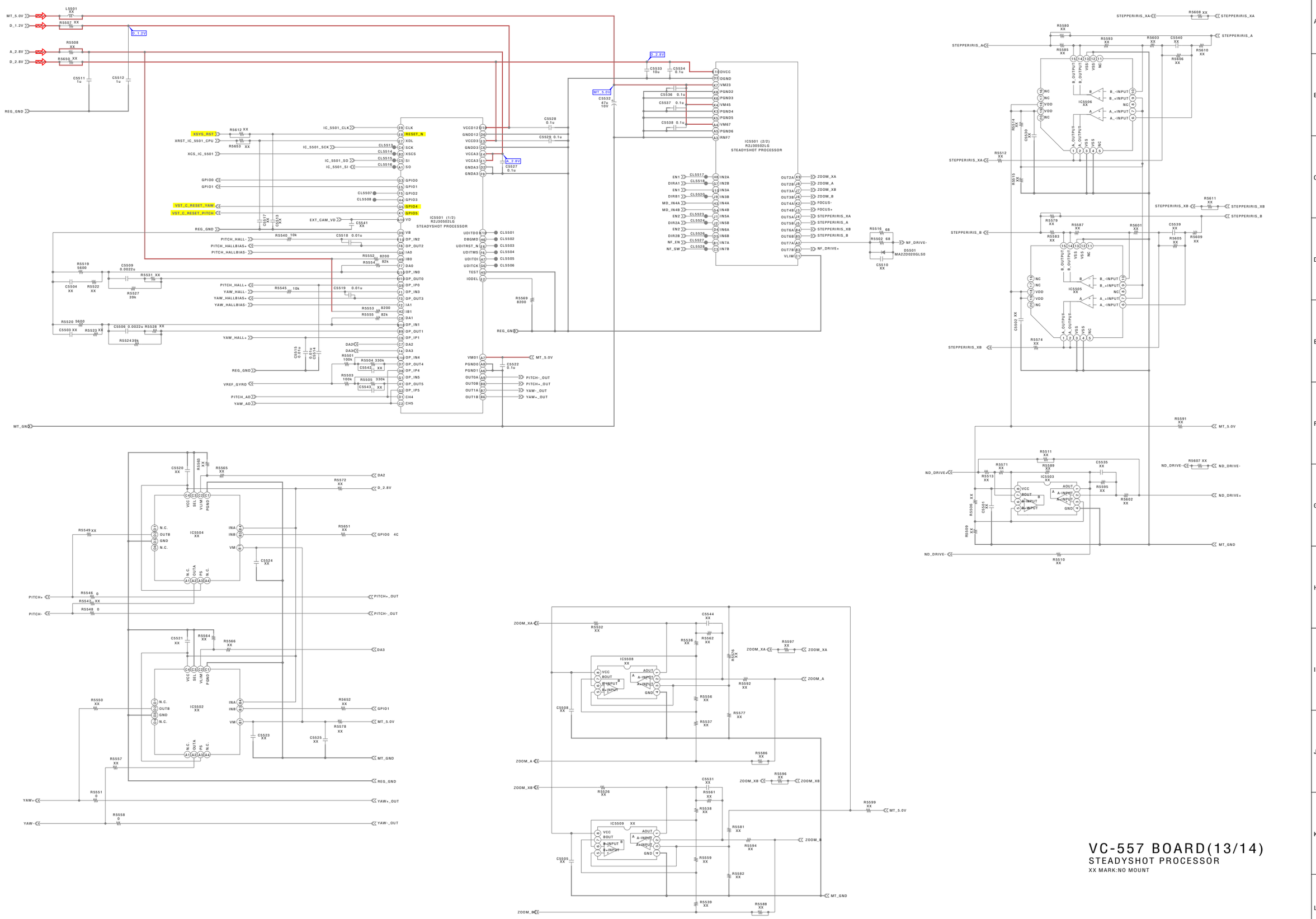


VC-557 BOARD(12/14)

ZOOM AND FOCUS DRIVE

XX MARK:NO MOUNT

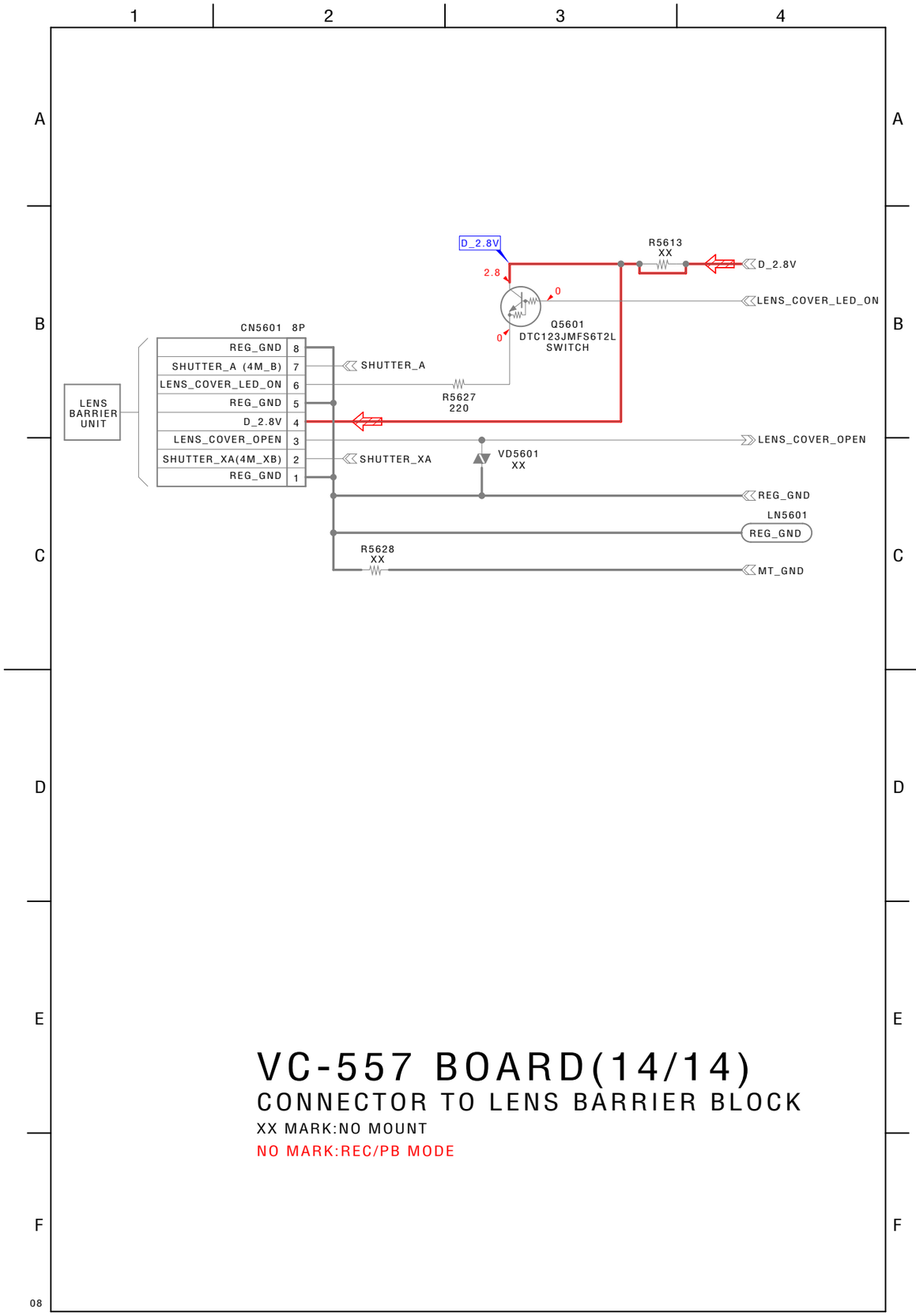
NO MARK:REC/PB MODE

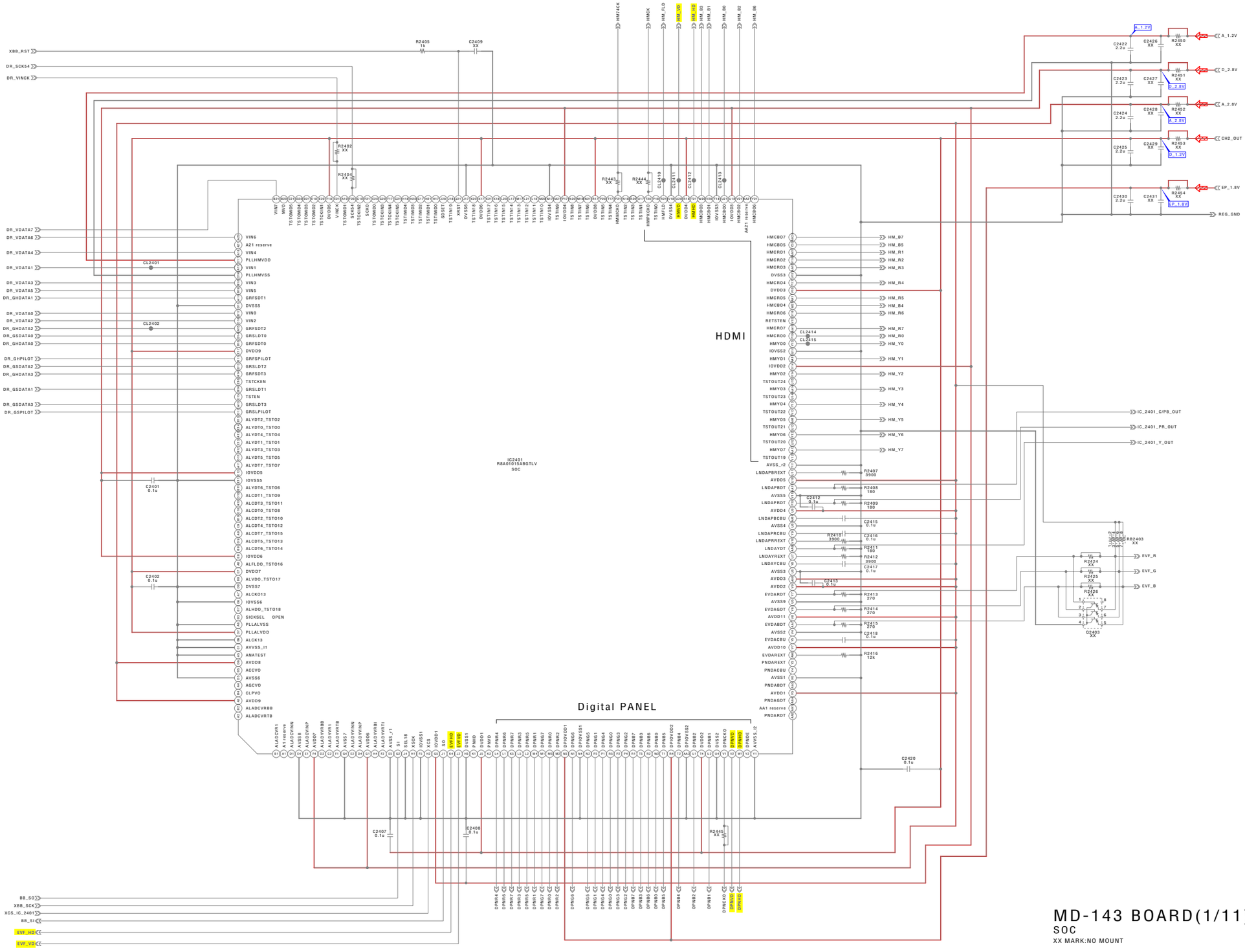


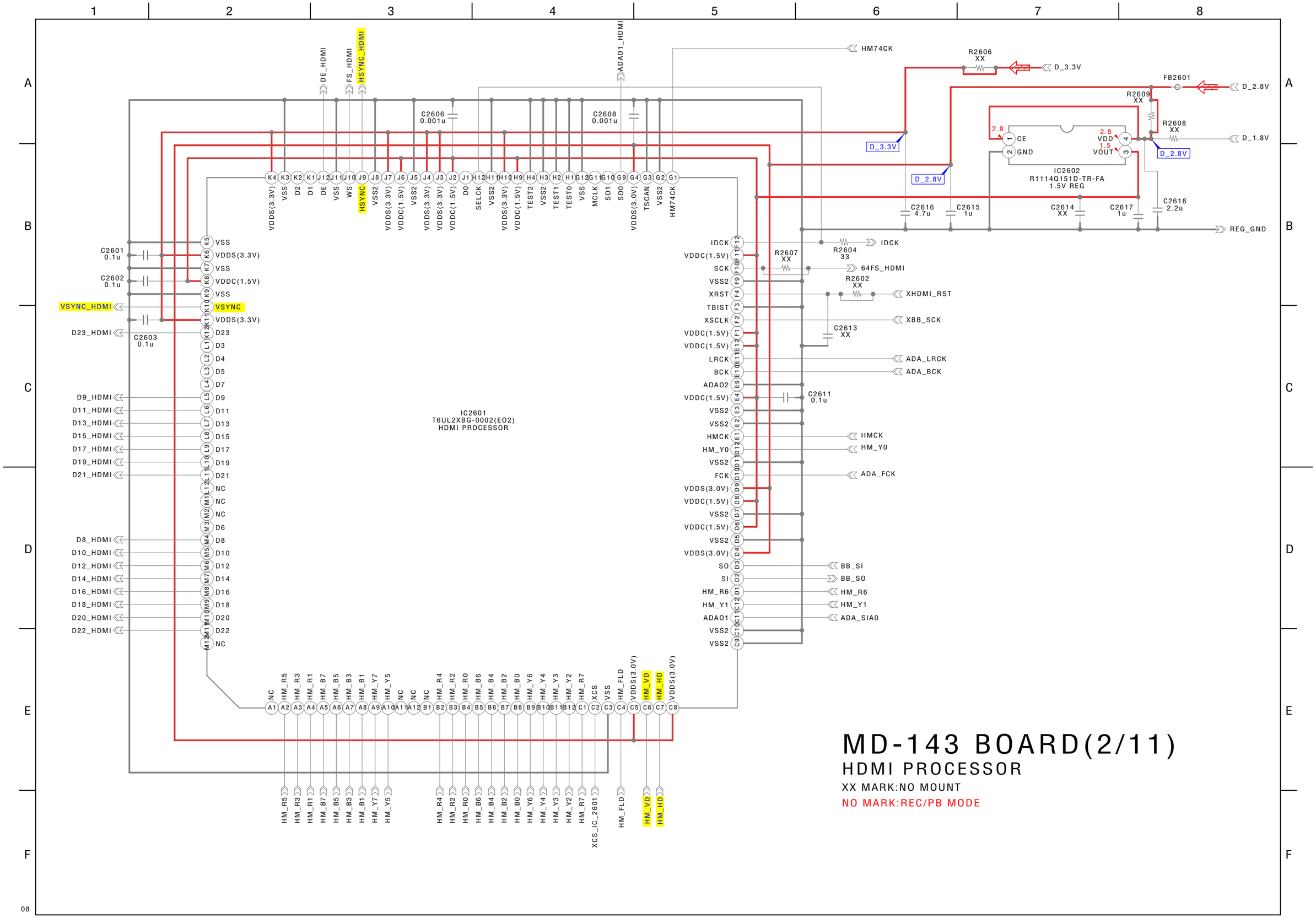
VC-557 BOARD(13/14)

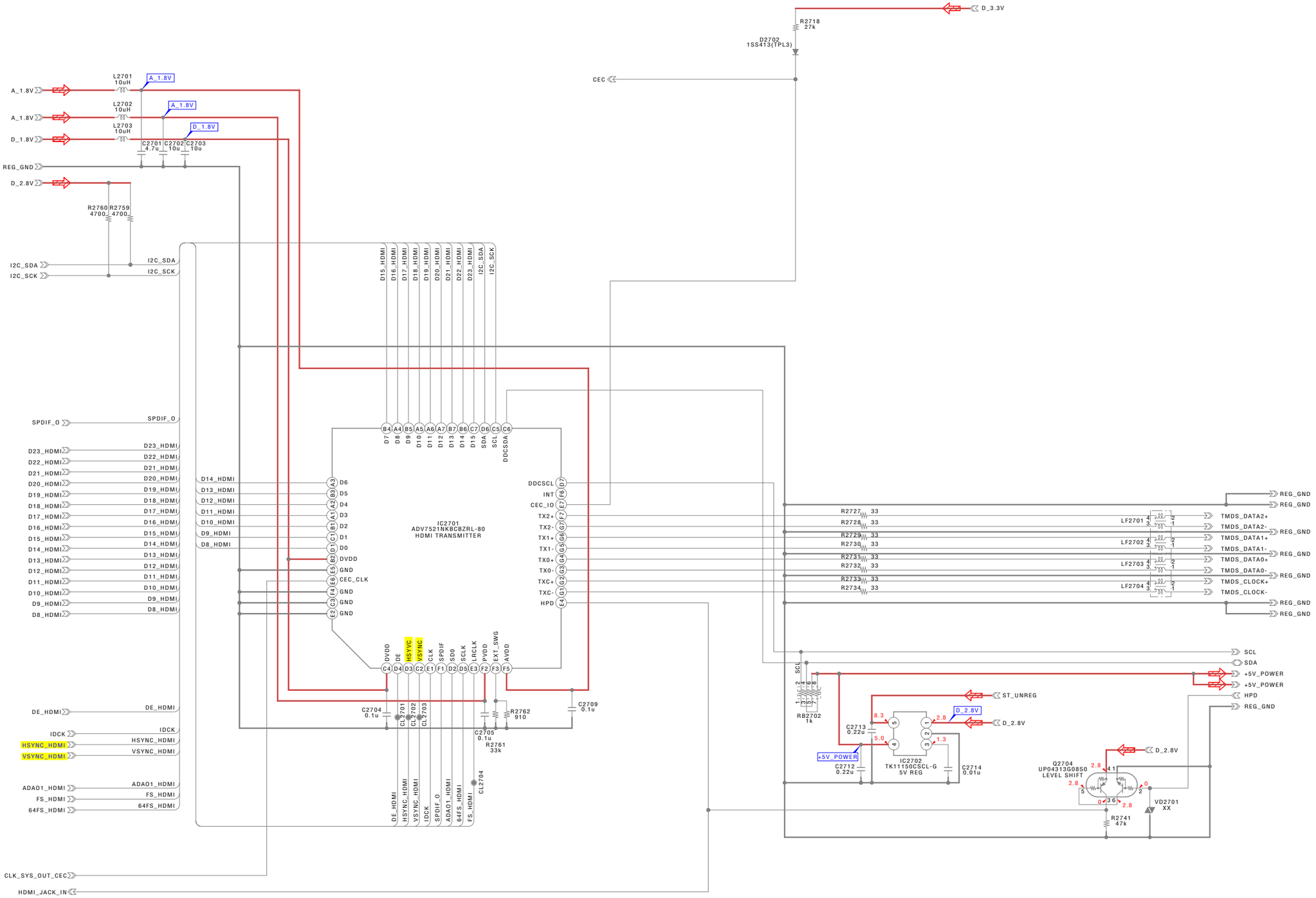
STEADYSHOT PROCESSOR

XX MARK:NO MOUNT


1
2
3
4
A
B
C
D
E
F
D_2.8V
2.8
R5613
XX
D_2.8V
0
LENS_COVER_LED_ON
Q5601
DTC123JMFS6T2L
SWITCH
0
CN5601 8P
REG_GND 8
SHUTTER_A (4M_B) 7
LENS_COVER_LED_ON 6
REG_GND 5
D_2.8V 4
LENS_COVER_OPEN 3
SHUTTER_XA(4M_XB) 2
REG_GND 1
SHUTTER_A
R5627
220
LENS
BARRIER
UNIT
LENS_COVER_OPEN
VD5601
XX
SHUTTER_XA
REG_GND
LN5601
REG_GND
R5628
XX
MT_GND
VC-557 BOARD(14/14)
CONNECTOR TO LENS BARRIER BLOCK
XX MARK:NO MOUNT
NO MARK:REC/PB MODE
08


HDMI
Digital PANEL
IC2401
R8A01015ABGTLV
SOC
MD-143 BOARD(1/11)
SOC
XX MARK:NO MOUNT


IC2601
T6UL2XBG-0002(EO2)
HDMI PROCESSOR
IC2602
R1114Q151D-TR-FA
1.5V REG
MD-143 BOARD(2/11)
HDMI PROCESSOR
XX MARK:NO MOUNT
NO MARK:REC/PB MODE

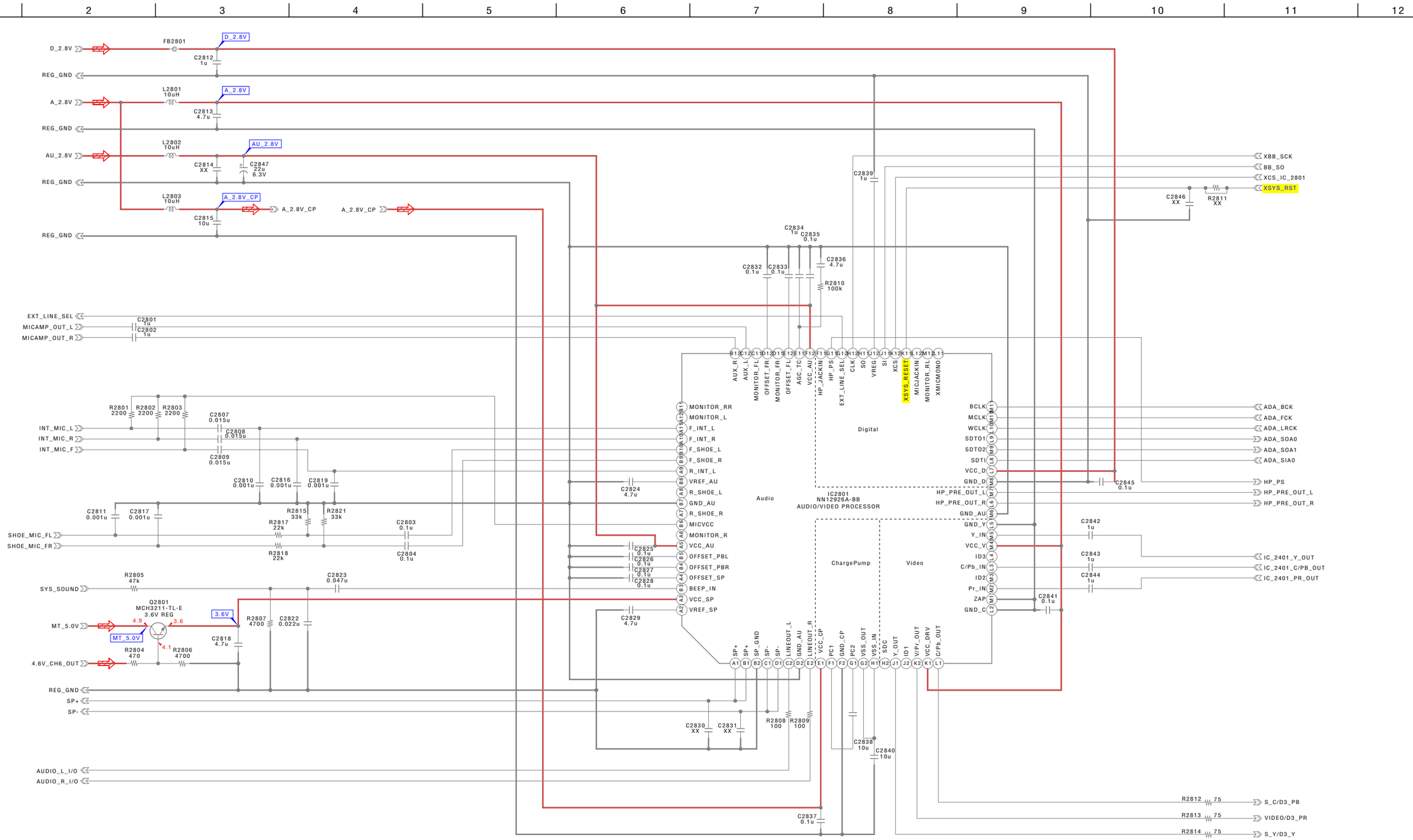


MD-143 BOARD(3/11)

HDMI TRANSMITTER

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

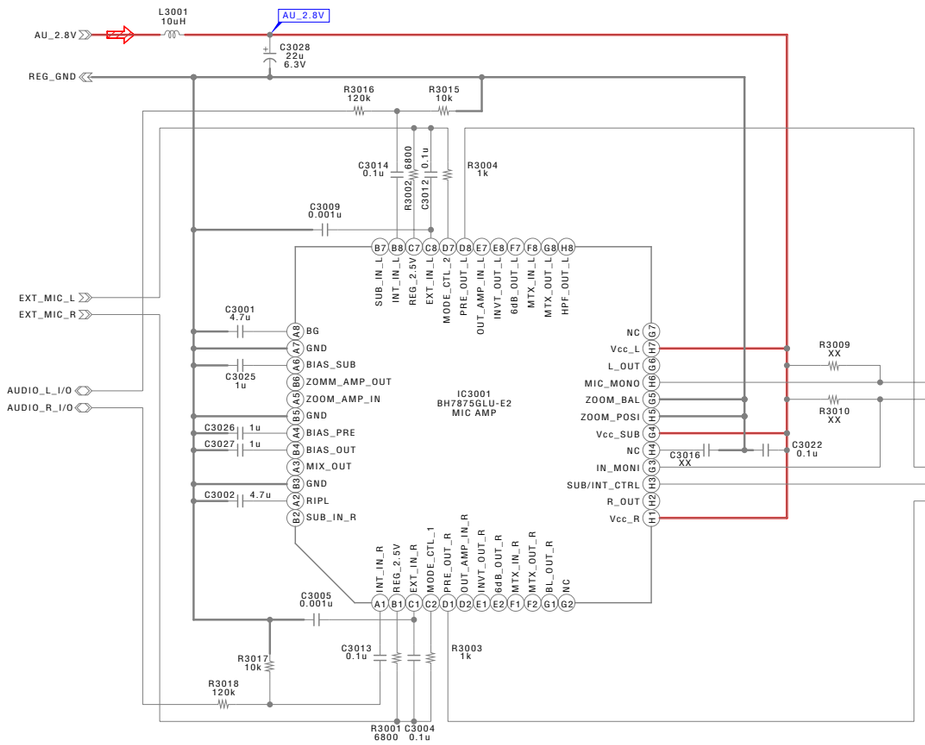


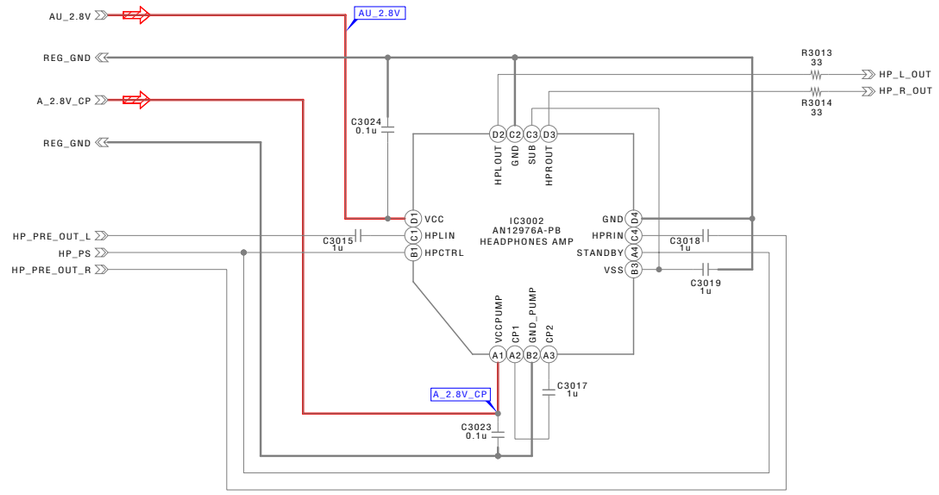
MD-143 BOARD(4/11)

AUDIO/VIDEO PROCESSOR

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

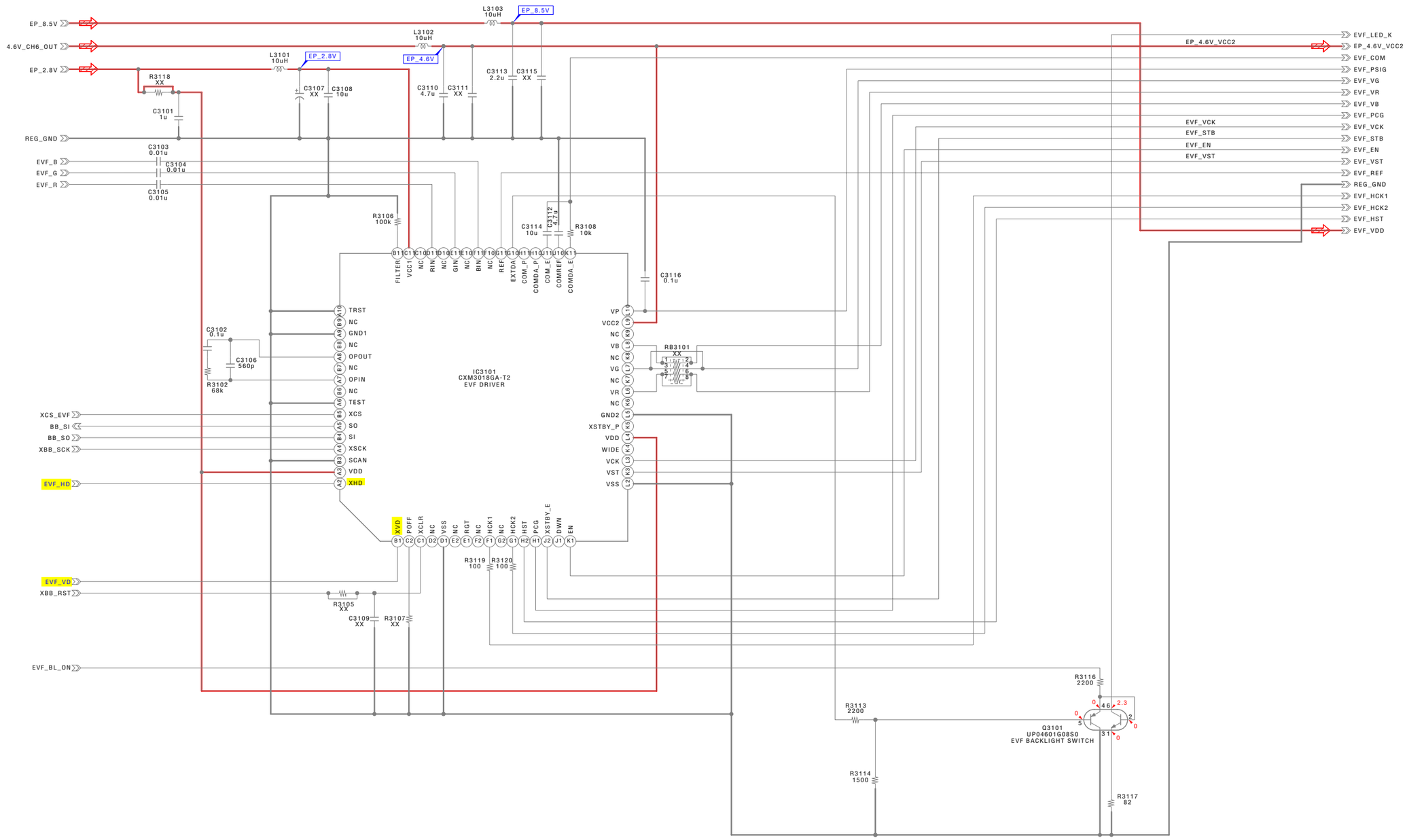




MD-143 BOARD(5/11)

MIC AMP, HEADPHONES AMP

XX MARK:NO MOUNT

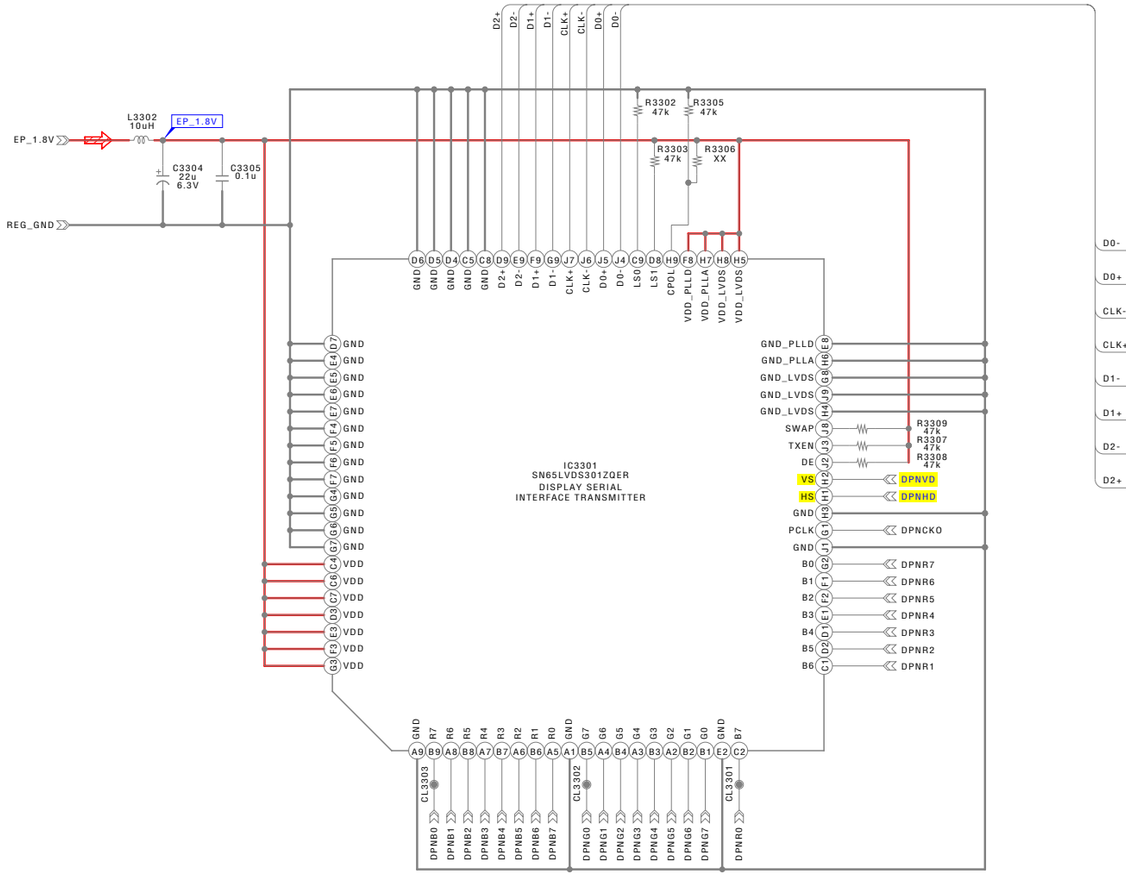


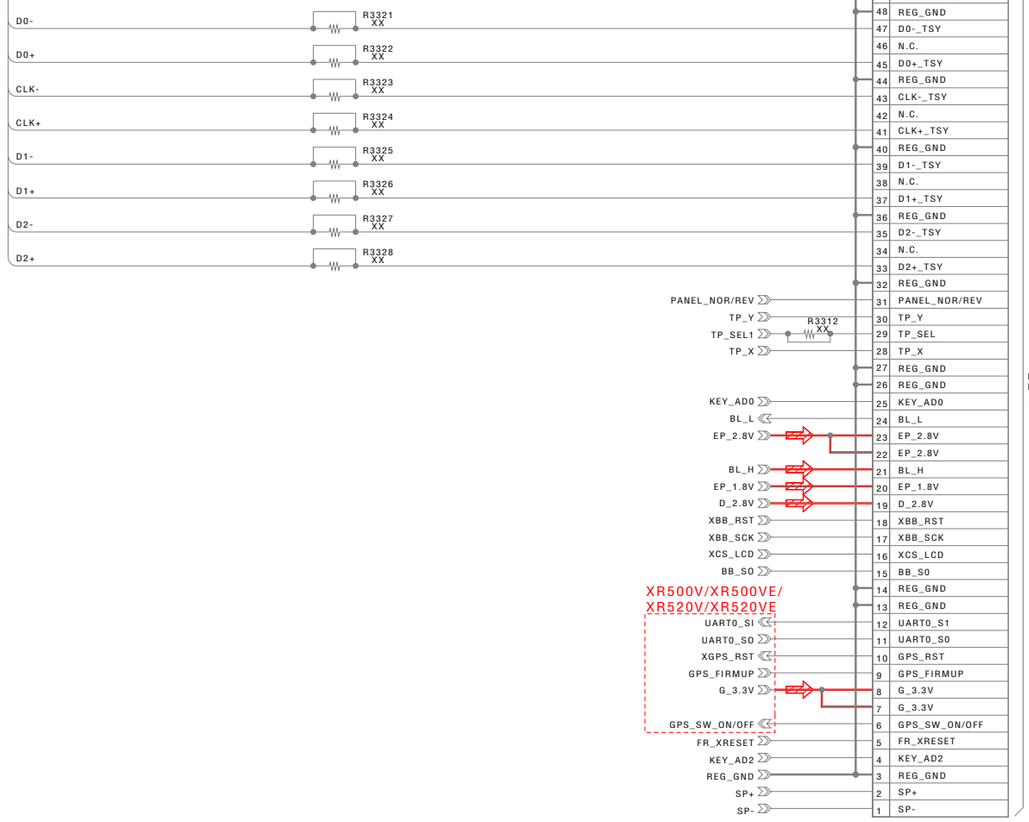
MD-143 BOARD(6/11)

EVF DRIVE

XX MARK:NO MOUNT

NO MARK:REC/PB MODE



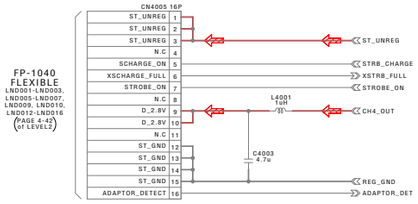


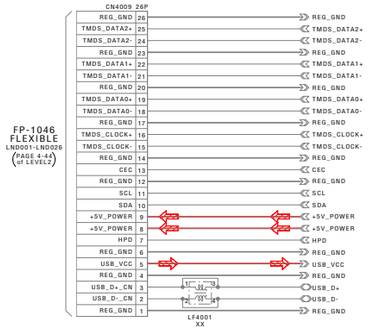
MD-143 BOARD(7/11)

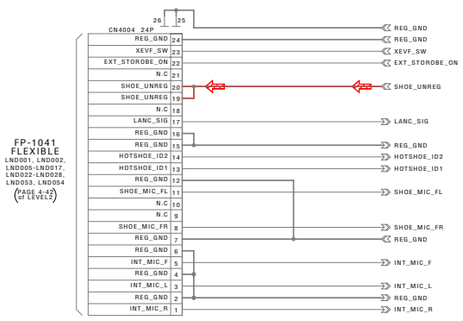
DISPLAY SERIAL INTERFACE TRANSMITTER

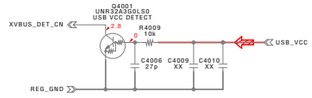
XX MARK:NO MOUNT

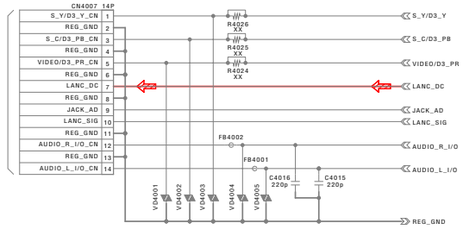
NO MARK:REC/PB MODE

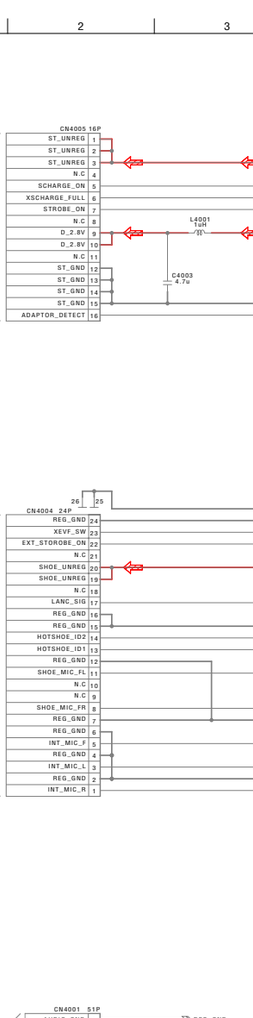


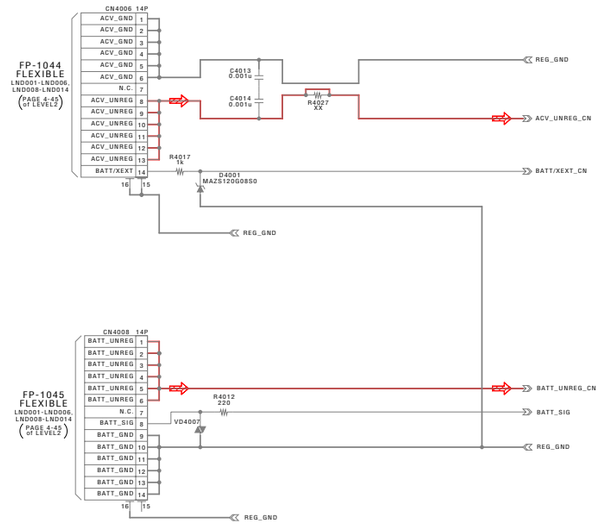


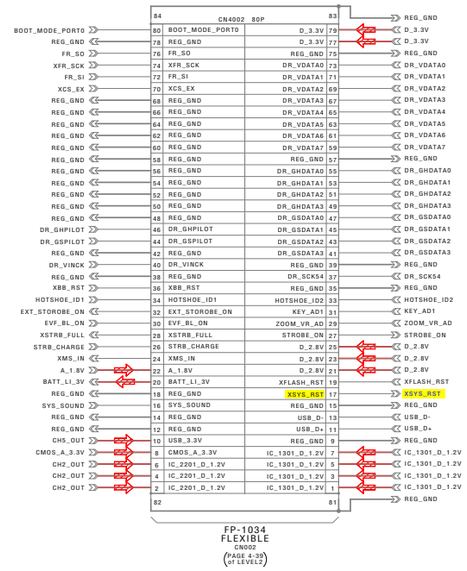






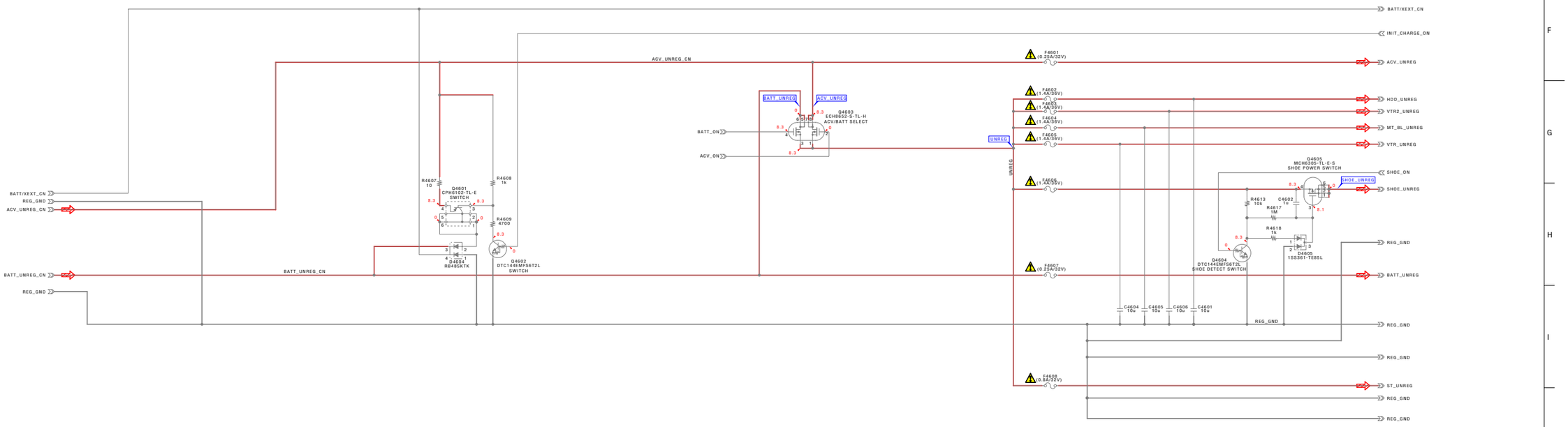






XR500V/XR500VE/
XR520V/XR520VE
CN4003 80P
MT_5.0V
MT_5.0V
MT_5.0V
REG_GND
UART0_SI
UART0_SO
XCS_LCD
REG_GND
TP_Y
TP_X
KEY_AD2
KEY_AD0
PANEL_O/C
HDMI_JACK_IN
D_1.8V
D_1.8V
D_1.8V
D_1.8V
SD_1.8V
XHDMI_RST
REG_GND
XCS_IC_2801
XCS_IC_2601
XCS_IC_2401
XCS_EVF
REG_GND
ADA_BCK
ADA_LRCK
ADA_FCK
REG_GND
SPDIF_O
XMODE_SW
MIC_JACK_IN
SHOE_ON
XPOWER_OFF
STABLE_RUN
GENERAL_AD
SYSTEM_AD
A_1.2V
PANEL_BL_ON
MT_5.0V
MT_5.0V
MT_5.0V
REG_GND
UART0_SI
UART0_SO
XCS_LCD
REG_GND
TP_Y
TP_X
KEY_AD2
KEY_AD0
PANEL_O/C
HDD_3.3V
HDD_3.3V
HDD_3.3V
D_1.8V
D_1.8V
D_1.8V
D_1.8V
SD_1.8V
REG_GND
REG_GND
REG_GND
REG_GND
REG_GND
REG_GND
REG_GND
REG_GND

• Refer to page 4-3 (English), 4-4 (Japanese) for mark ⚠.

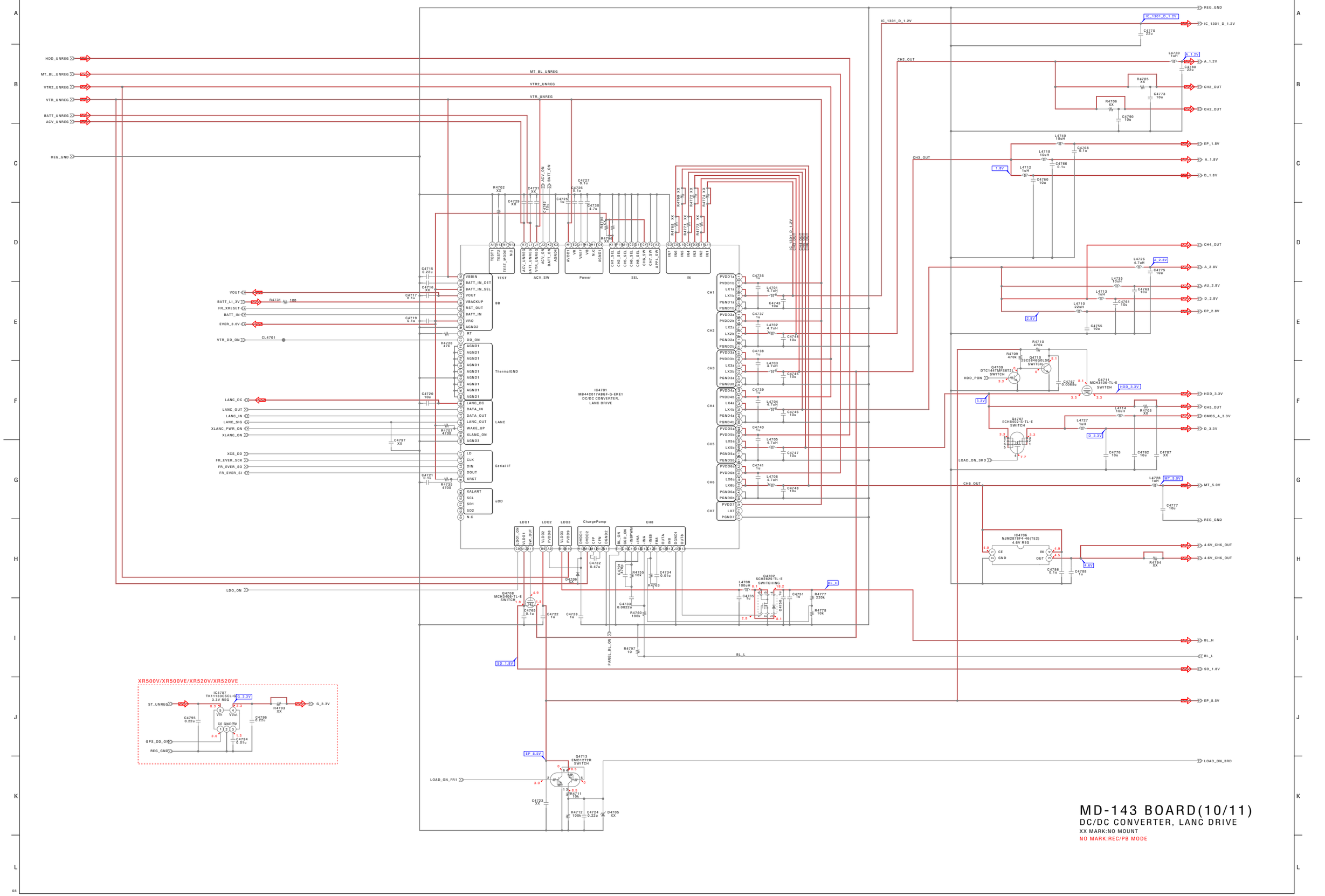


MD-143 BOARD(9/11)

DC IN

XX MARK:NO MOUNT

NO MARK:REC/PB MODE



HDR-XR500/XR500E/XR500V/XR500VE/
XR520/XR520E/XR520V/XR520VE_L3

MD-143 (10/11)

MD-143 BOARD(11/11)

LANC PROCESSOR

XX MARK:NO MOUNT

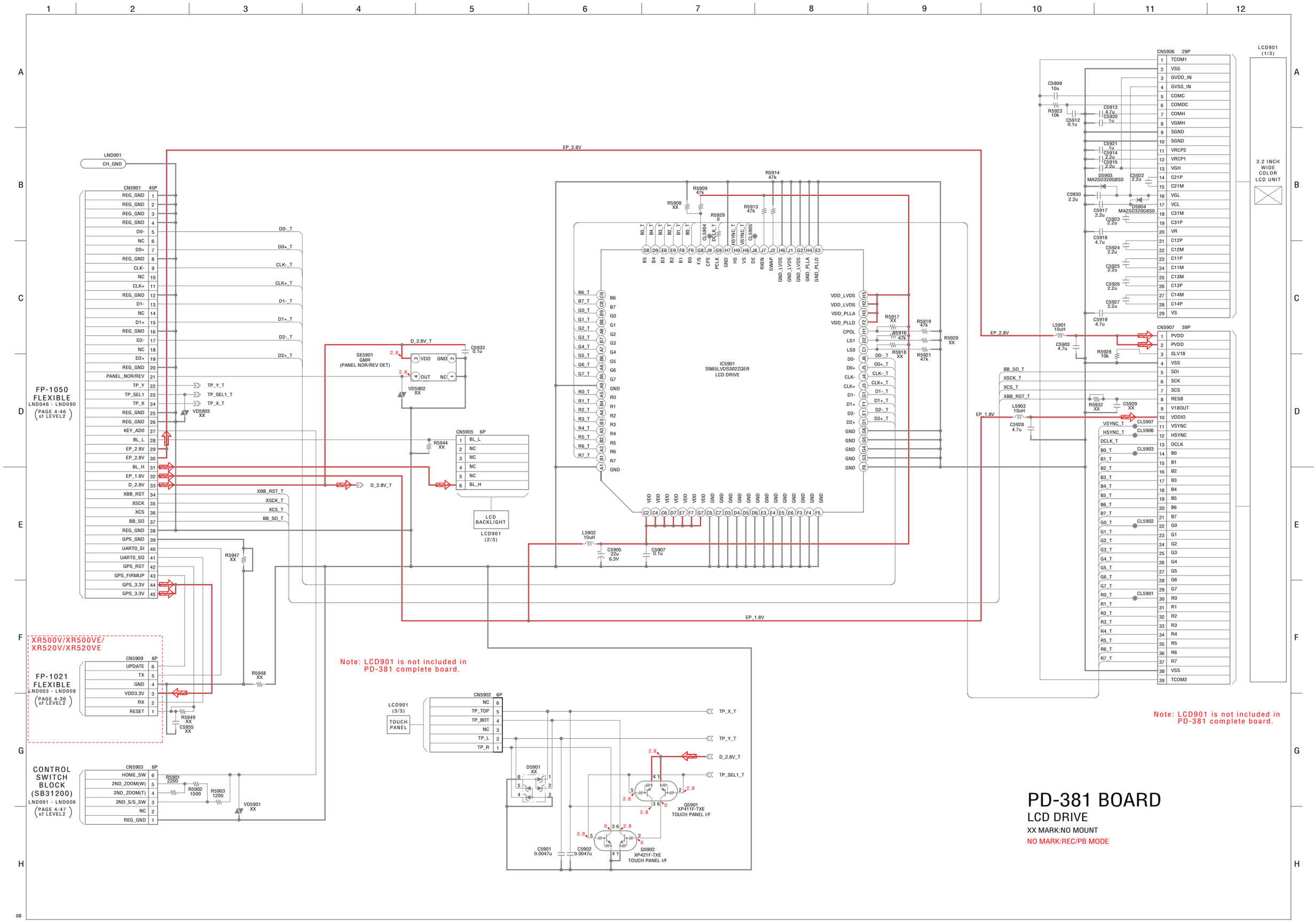
NO MARK:REC/PB MODE

IC4901
MB95005ABGL-G-120-ERE1
LANC INTERFACE,
HI PROCESSOR

Q4901
UP04313G08S0
BUFFER

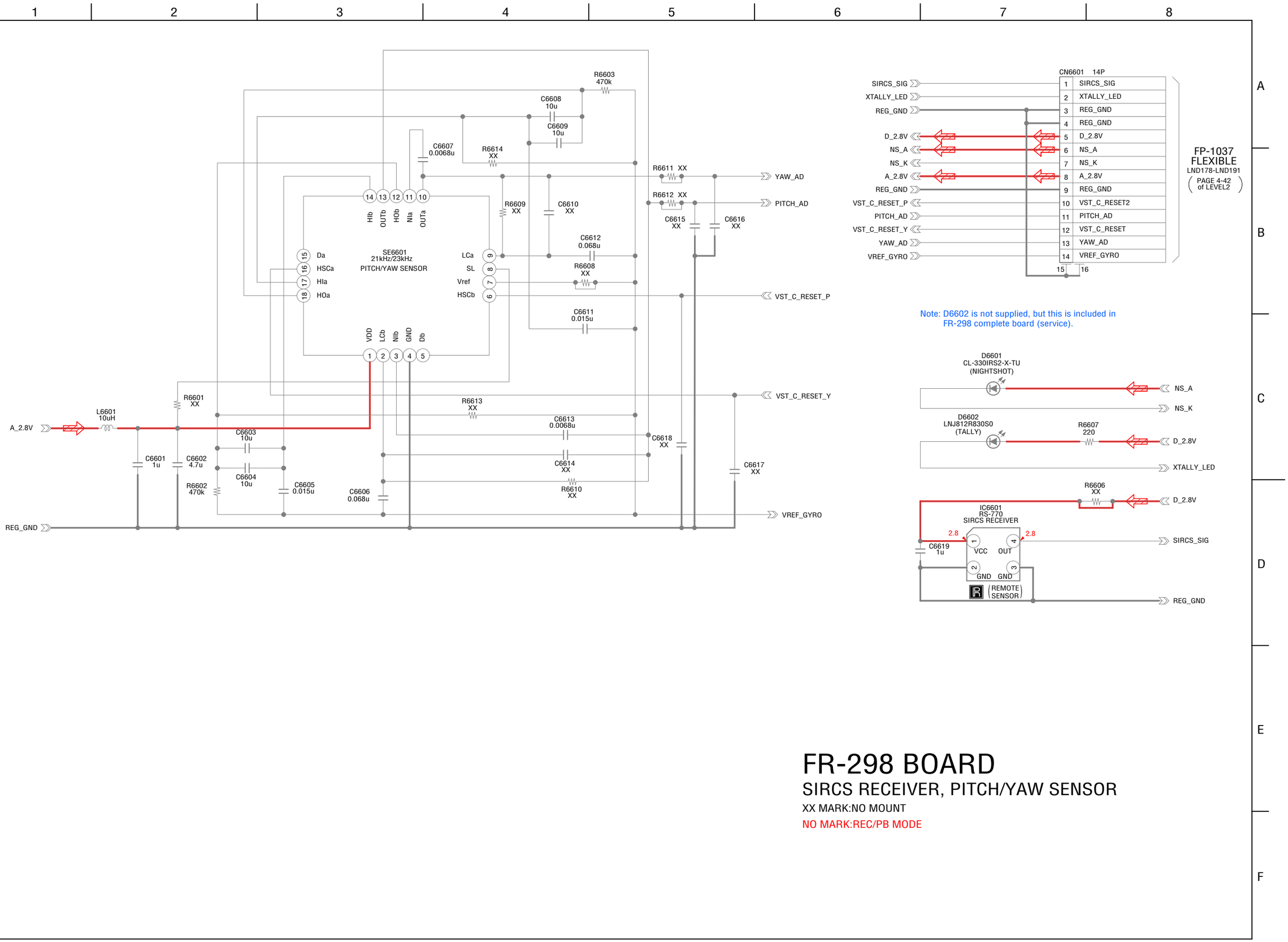
XR500V/XR500VE/
XR520V/XR520VE

XR500/
XR500E/
XR520/
XR520E


LND001
CH_GND
CN5901 45P
REG_GND 1
REG_GND 2
REG_GND 3
REG_GND 4
D0- 5
NC 6
D0+ 7
REG_GND 8
CLK- 9
NC 10
CLK+ 11
REG_GND 12
D1- 13
NC 14
D1+ 15
REG_GND 16
D2- 17
NC 18
D2+ 19
REG_GND 20
PANEL_NOR/REV 21
TP_Y 22
TP_SEL1 23
TP_X 24
REG_GND 25
REG_GND 26
KEY_ADD 27
BL_L 28
EP_2.8V 29
EP_2.8V 30
BL_H 31
EP_1.8V 32
D_2.8V 33
XBB_RST 34
XSCK 35
XCS 36
BB_SO 37
REG_GND 38
GPS_GND 39
UART0_SI 40
UART0_SO 41
GPS_RST 42
GPS_FIRMUP 43
GPS_3.3V 44
GPS_3.3V 45
FP-1050
FLEXIBLE
LND046 - LND090
(PAGE 4-46 of LEVEL2)
TP_Y_T
TP_SEL1_T
TP_X_T
VD5903
XX
D0-_T
D0+_T
CLK-_T
CLK+_T
D1-_T
D1+_T
D2-_T
D2+_T
D_2.8V_T
XBB_RST_T
XSCK_T
XCS_T
BB_SO_T
EP_2.8V
EP_1.8V
SE5901
GMR
(PANEL NOR/REV DET)
VDD
GND
OUT
NC
C5932
0.1u
VD5902
XX
CN5905 6P
BL_L
NC
NC
NC
NC
BL_H
R5944
XX
LCD
BACKLIGHT
LCD901
(2/3)
R5947
XX
XR500V/XR500VE/
XR520V/XR520VE
CN5909 6P
UPDATE
TX
GND
VDD3.3V
RX
RESET
FP-1021
FLEXIBLE
LND003 - LND008
(PAGE 4-36 of LEVEL2)
R5948
XX
R5949
XX
C5935
XX
CONTROL
SWITCH
BLOCK
(SB31200)
LND001 - LND006
(PAGE 4-47 of LEVEL2)
CN5903 6P
HOME_SW
2ND_ZOOM(W)
2ND_ZOOM(T)
2ND_S/S_SW
NC
REG_GND
R5901
2200
R5902
1500
R5903
1200
VD5901
XX
R5914
47k
R5909
47k
R5908
XX
R5913
47k
R5929
0
IC5901
SN65LVDS302ZQER
LCD DRIVE
R5917
XX
R5919
47k
R5916
47k
R5920
XX
R5918
XX
R5921
47k
L5902
10uH
C5905
22u
6.3V
C5907
0.1u
Note: LCD901 is not included in
PD-381 complete board.
LCD901
(3/3)
TOUCH
PANEL
CN5902 6P
NC
TP_TOP
TP_BOT
NC
TP_L
TP_R
TP_X_T
TP_Y_T
D_2.8V_T
TP_SEL1_T
D5901
XX
C5901
0.0047u
C5902
0.0047u
Q5901
XP411F-TXE
TOUCH PANEL I/F
Q5902
XP421F-TXE
TOUCH PANEL I/F
EP_2.8V
EP_1.8V
CN5906 29P
TCOM1
VSS
GVDD_IN
GVSS_IN
COMC
COMDC
COMH
VGMH
SGND
SGND
VRCP2
VRCP1
VGH
C21P
C21M
VGL
VCL
C31M
C31P
VR
C12P
C12M
C11P
C11M
C13M
C13P
C14M
C14P
VS
C5909
10u
R5923
10k
C5912
0.1u
C5913
4.7u
C5920
1u
C5921
1u
C5914
2.2u
C5915
2.2u
D5903
MA2SD320G8S0
C5922
2.2u
C5930
2.2u
C5917
2.2u
D5904
MA2SD320G8S0
C5923
2.2u
C5918
4.7u
C5924
2.2u
C5925
2.2u
C5926
2.2u
C5927
2.2u
C5919
4.7u
LCD901
(1/3)
3.2 INCH
WIDE
COLOR
LCD UNIT
CN5907 39P
PVDD
PVDD
SLV18
VSS
SDI
SCK
SCS
RESB
V18OUT
VDDIO
VSYNC
HSYNC
DCLK
B0
B1
B2
B3
B4
B5
B6
B7
G0
G1
G2
G3
G4
G5
G6
G7
R0
R1
R2
R3
R4
R5
R6
R7
VSS
TCOM2
L5901
10uH
C5903
4.7u
R5928
10k
BB_SO_T
XSCK_T
XCS_T
XBB_RST_T
L5903
10uH
C5928
4.7u
R5932
XX
C5929
XX
VSYNC_T
HSYNC_T
DCLK_T
B0_T
B1_T
B2_T
B3_T
B4_T
B5_T
B6_T
B7_T
G0_T
G1_T
G2_T
G3_T
G4_T
G5_T
G6_T
G7_T
R0_T
R1_T
R2_T
R3_T
R4_T
R5_T
R6_T
R7_T
CL5907
CL5906
CL5903
CL5902
CL5901
Note: LCD901 is not included in
PD-381 complete board.
PD-381 BOARD
LCD DRIVE
XX MARK:NO MOUNT
NO MARK:REC/PB MODE

Ver. 1.1 2009.02

The changed portions from
Ver. 1.0 are shown in blue.



FR-298 BOARD

SIRCS RECEIVER, PITCH/YAW SENSOR

XX MARK:NO MOUNT

NO MARK:REC/PB MODE

4-3. PRINTED WIRING BOARDS

Link

- CM-103 BOARD
- MD-143 BOARD (SIDE B)
- VC-557 BOARD (SIDE A)
- PD-381 BOARD
- VC-557 BOARD (SIDE B)
- FR-298 BOARD
- MD-143 BOARD (SIDE A)

- COMMON NOTE FOR PRINTED WIRING BOARDS

4-3. PRINTED WIRING BOARDS

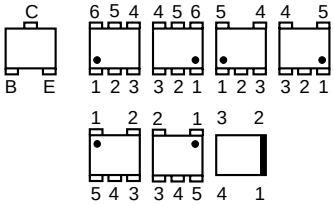
(ENGLISH)

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS

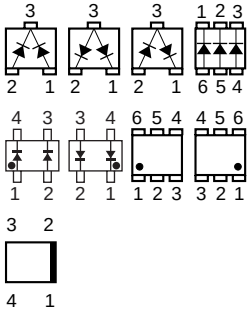
- : Uses unleaded solder.
- : Circuit board
  : Flexible board
  Pattern from the side which enables seeing.
  : pattern of the rear side
  (The other layers' patterns are not indicated)
- Through hole is omitted.
- There are a few cases that the part printed on diagram isn't mounted in this model.
- : panel designation

- Chip parts.

Transistor



Diode



(JAPANESE)

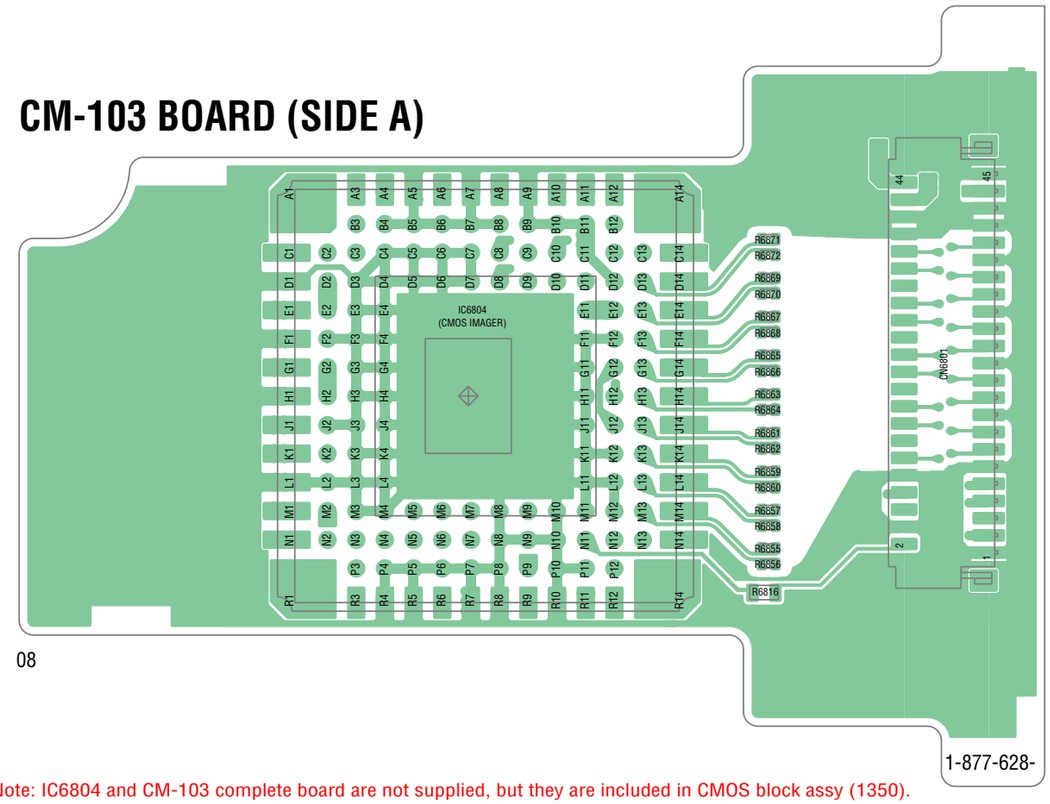
プリント図共通ノート

【プリント図ノート】

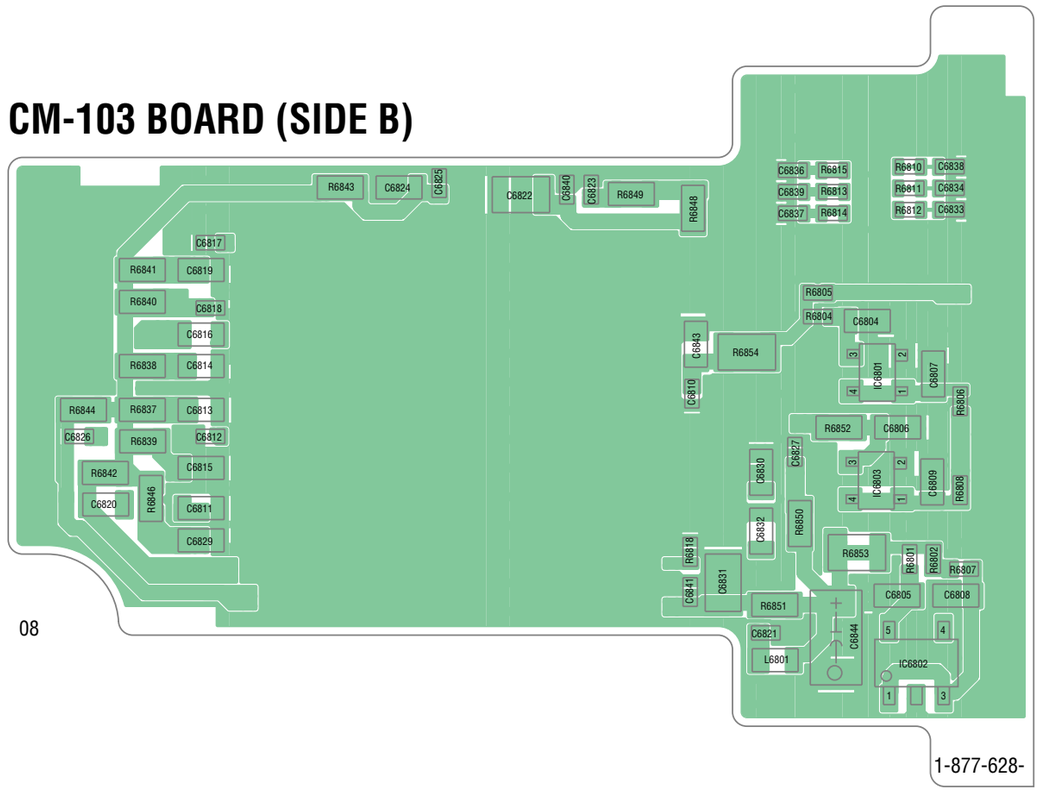
- **：無鉛半田を使用しています。**
- **：基板**
  ：フレキシブル配線板
  見ている面側のパターン。
  ：裏側のパターン
  （他のパターンについては表示されていません）
- **スルーホールは省略。**
- **プリント図には，本機で使用していない部品が記載されている場合があります。**
- **はパネル表示名称。**

CM-103 (6 layers)

: Uses unleaded solder.



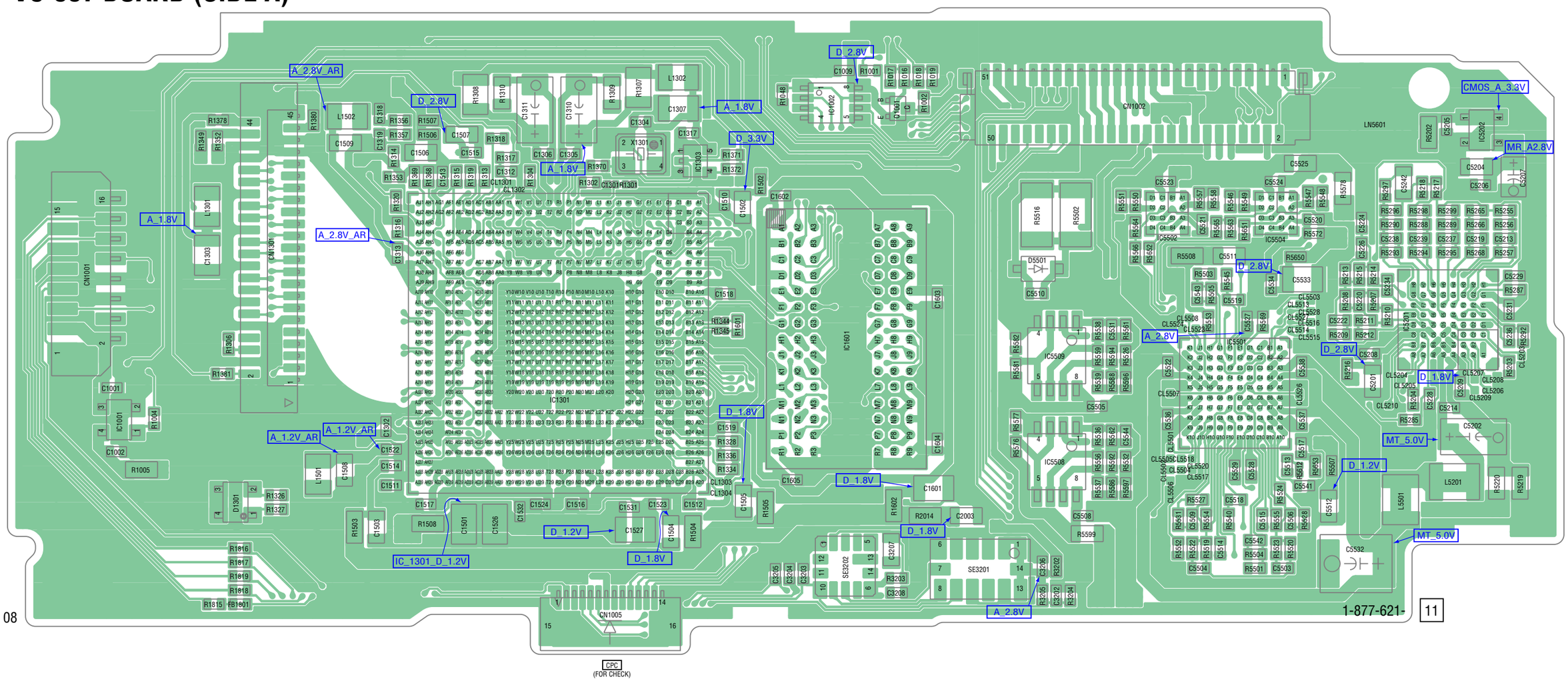
Note: IC6804 and CM-103 complete board are not supplied, but they are included in CMOS block assy (1350).



VC-557 (8 layers)

: Uses unleaded solder.

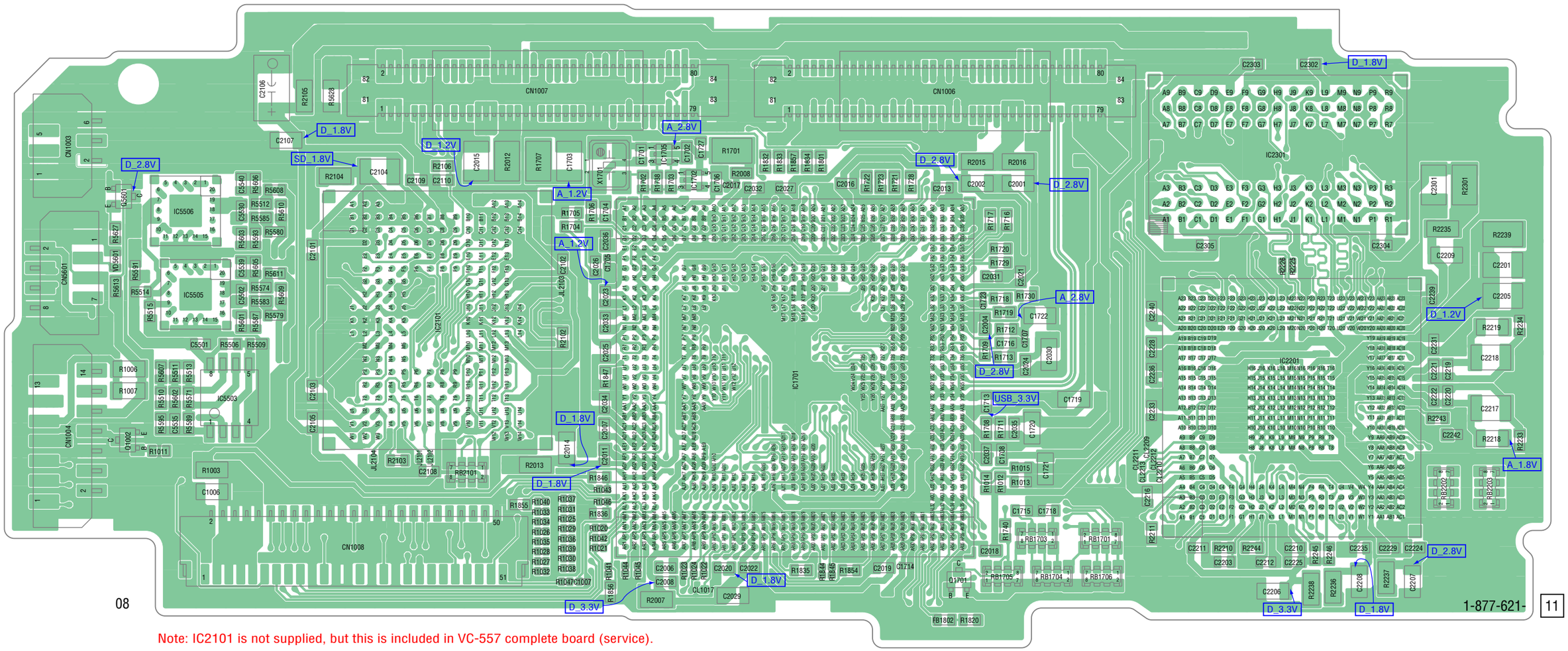
VC-557 BOARD (SIDE A)



VC-557 (8 layers)

: Uses unleaded solder.

VC-557 BOARD (SIDE B)

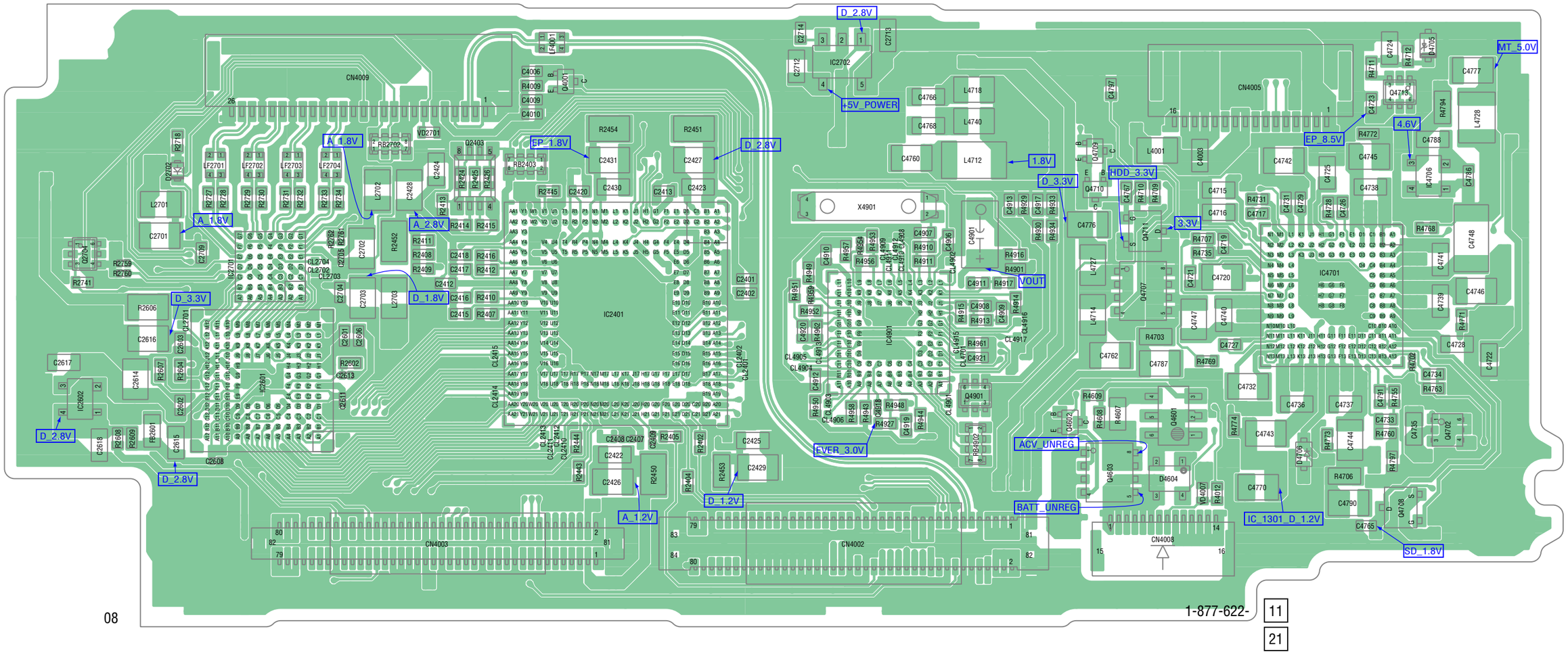


Note: IC2101 is not supplied, but this is included in VC-557 complete board (service).

MD-143 (8 layers)

: Uses unleaded solder.

MD-143 BOARD (SIDE A)



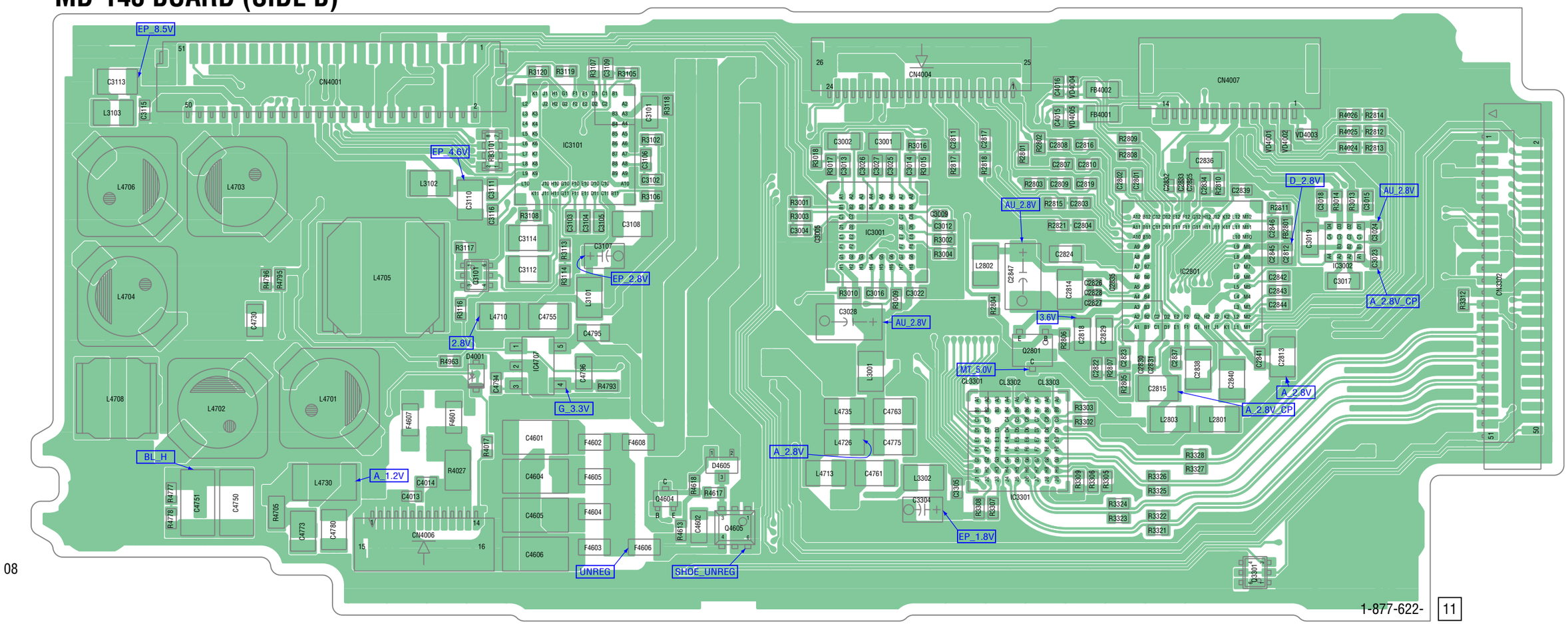
08

1-877-622- 11 21

MD-143 (8 layers)

: Uses unleaded solder.

MD-143 BOARD (SIDE B)



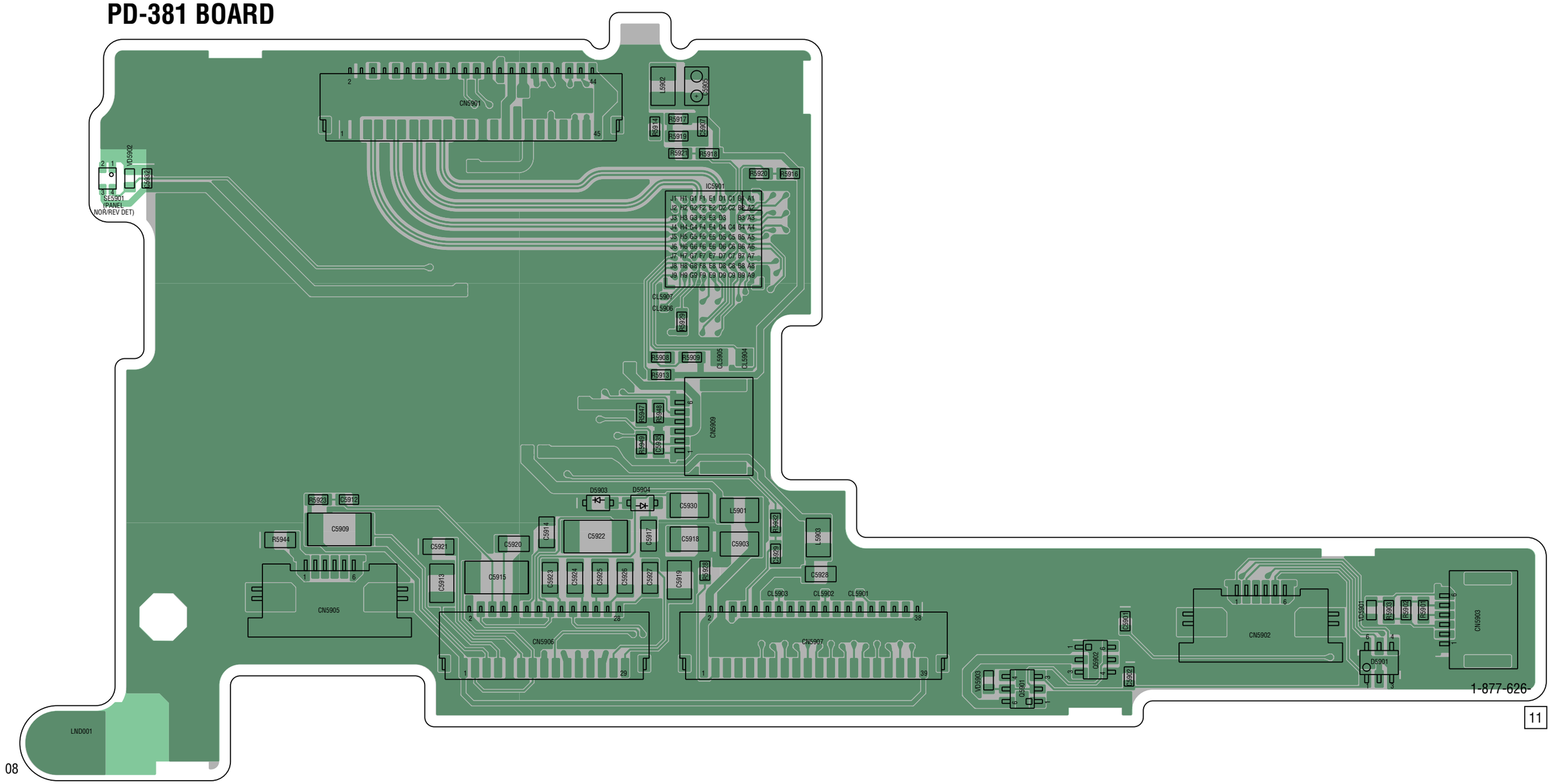
08

1-877-622- 11 21

PD-381 (4 layers)

: Uses unleaded solder.

PD-381 BOARD



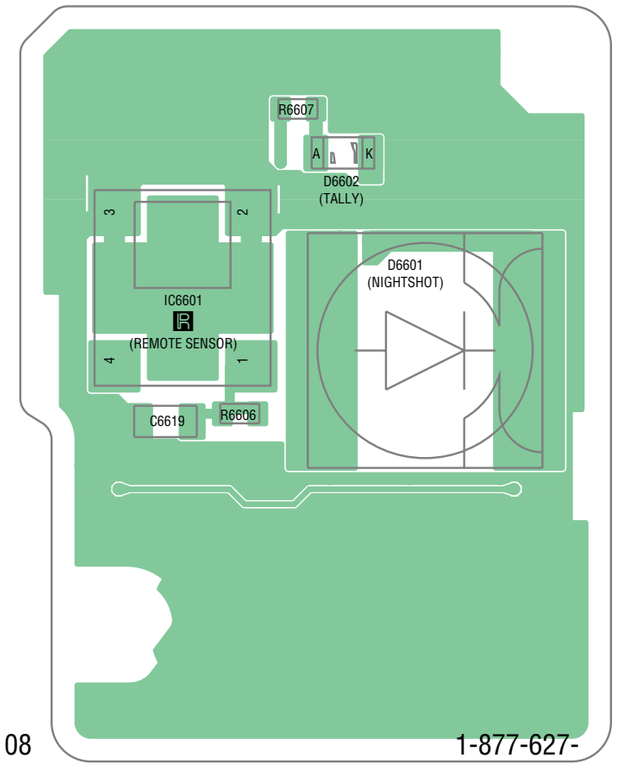
Ver. 1.1 2009.02

The changed portions from Ver. 1.0 are shown in blue.

FR-298 (4 layers)

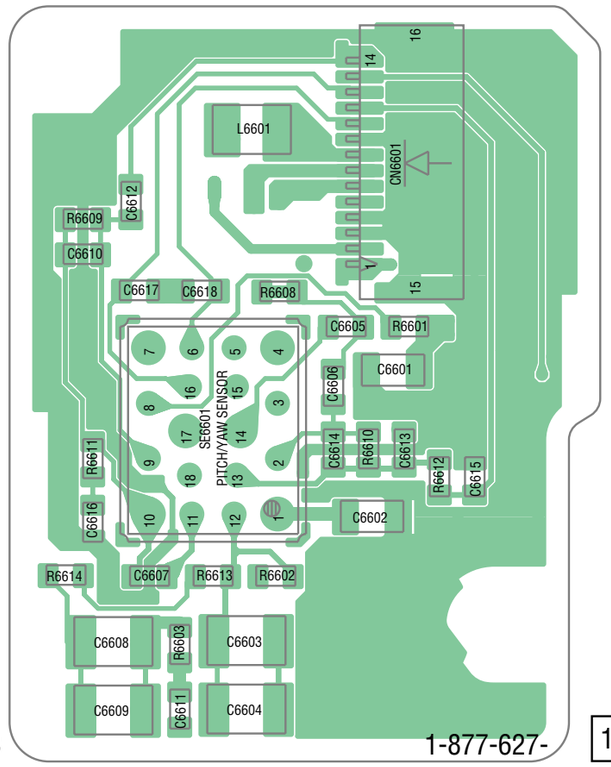
: Uses unleaded solder.

FR-298 BOARD (SIDE A)



08 1-877-627- 11

FR-298 BOARD (SIDE B)



08 1-877-627- 11

Note: D6602 is not supplied, but this is included in FR-298 complete board (service).

5. REPAIR PARTS LIST

(ENGLISH)

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- CAPACITORS:
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- Color Indication of Appearance Parts
  Example:
  (SILVER) : Cabinet's Color
  (Silver) : Parts Color

(JAPANESE)

【使用上の注意】

- **ここに記載されている部品は, 補修用部品であるため, 回路図及びセットに付いている部品と異なる場合があります。**
- **-XX, -Xは標準化部品のため, セットに付いている部品と異なる場合があります。**
- ***印の部品は常備在庫しておりません。**
- **コンデンサの単位でuFはµFを示します。**
- **抵抗の単位Ωは省略してあります。**
  金　　被：金属被膜抵抗。
  サンキン：酸化金属被膜抵抗。
- **インダクタの単位でuHはµHを示します。**
- **半導体の名称でuA..., uPA..., uPB..., uPC..., uPD...等はそれぞれµA..., µPA..., µPB..., µPC..., µPD...を示します。**

お願い
図面番号で部品を指定するときは基板名又はブロックを併せて指定してください。

⚠印の部品，または⚠印付の点線で囲まれた部品は，安全性を維持するために，重要な部品です。
従って交換時は,必ず指定の部品を使用してください。

- **外装部品色表示**
  例：
  (SILVER):セットの色を表す。
  (Silver) ：部品の色を表す。

- Abbreviation
  AUS : Australian model
  CH : Chinese model
  CND : Canadian model
  HK : Hong Kong model
  J : Japanese model
  JE : Tourist model
  KR : Korea model
  NE : North European model

5-2. ELECTRICAL PARTS LIST

Ref. No.	Part No.	Description			
	A-1550-292-A	CMOS BLOCK ASSY (1350)			
	(Not supplied)	CM-103 BOARD, COMPLETE			
		**********			

(CM-103 complete board and IC6804 (CMOS imager) are not supplied, but they are included in CMOS block assy (1350).)

< CAPACITOR >

	C6806	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C6809	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C6810	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C6811	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
	C6812	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C6813	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C6814	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
	C6815	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C6816	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
	C6817	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C6818	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C6819	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C6820	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
	C6821	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C6823	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C6824	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C6825	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
	C6826	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C6827	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C6829	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C6830	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C6832	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
	C6840	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C6841	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
	C6843	1-165-908-11	CERAMIC CHIP	1uF	10%	10V

< CONNECTOR >

*	CN6801	1-821-500-11	CONNECTOR, FPC (ZIF) 45P	

< IC >

*	IC6803	6-708-455-01	IC R1114Q271D-TR-FA
	IC6804	(Not supplied)	IMX061CHR-13 (CMOS IMAGER) (Note)

(IC6804 is supplied included in CMOS block assy (1350).)

< COIL >

*	L6801	1-481-102-21	INDUCTOR	10uH

< RESISTOR >

R6812	1-218-953-11	METAL CHIP	1K	5%	1/16W
R6816	1-218-941-81	METAL CHIP	100	5%	1/16W
R6818	1-208-927-11	METAL CHIP	47K	0.5%	1/16W

Note: Be sure to read “Precautions for Replacement of Imager” on page 4-3 when changing the imager.

Note: **イメージャの交換時は4 - 4 ページの “ イメージャ交換時の注意 ” を必ずお読みください。**

Ref. No.	Part No.	Description			
	A-1708-615-A	FR-298 BOARD, COMPLETE (SERVICE)			
		**********			

(D6602 is not supplied, but this is included in FR-298 complete board (service).)

< CAPACITOR >

	C6601	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
*	C6602	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
	C6603	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
	C6604	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
	C6605	1-127-988-81	CERAMIC CHIP	0.015uF	10%	16V
	C6606	1-137-987-81	CERAMIC CHIP	0.068uF	10%	10V
	C6607	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
	C6608	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
	C6609	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
	C6611	1-127-988-81	CERAMIC CHIP	0.015uF	10%	16V
	C6612	1-137-987-81	CERAMIC CHIP	0.068uF	10%	10V
	C6613	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
	C6619	1-165-908-11	CERAMIC CHIP	1uF	10%	10V

< CONNECTOR >

*	CN6601	1-820-031-51	CONNECTOR, FPC (LIF (NON-ZIF))

< DIODE >

D6601	6-500-512-01	DIODE CL-330IRS-X-TU
D6602	(Not supplied)	DIODE LNJ812R830S0

(D6602 is supplied included in FR-298 complete board (service).)

< IC >

IC6601	6-600-163-01	IC RS-770 (REMOTE SENSOR)

< COIL >

*	L6601	1-481-425-21	INDUCTOR	10uH

< RESISTOR >

	R6602	1-218-985-11	METAL CHIP	470K	5% 1/16W
	R6603	1-218-985-11	METAL CHIP	470K	5% 1/16W
	R6607	1-218-945-11	METAL CHIP	220	5% 1/16W

< SENSOR >

	SE6601	1-480-781-31	SENSOR, ANGULAR VELOCITY (21kHz/23kHz) (PITCH/YAW SENSOR)

Ref. No.	Part No.	Description			
	A-1702-492-A	MD-143 BOARD, COMPLETE (XR500V/XR500VE/XR520V/XR520VE)			
	A-1702-493-A	MD-143 BOARD, COMPLETE (XR500/XR500E/XR520/XR520E)			
		**********			
		< CAPACITOR >			
C2401	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2402	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
* C2407	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
* C2408	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
C2412	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2413	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2415	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2416	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2417	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2418	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2420	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2422	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2423	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2424	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2425	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2430	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2601	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2602	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2603	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2606	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2608	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V
* C2611	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
C2615	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C2616	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2617	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C2618	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2701	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2702	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C2703	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C2704	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
* C2705	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
C2709	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2712	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C2713	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C2714	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C2801	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C2802	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C2803	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2804	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2807	1-127-988-81	CERAMIC CHIP	0.015uF	10%	16V
C2808	1-127-988-81	CERAMIC CHIP	0.015uF	10%	16V
C2809	1-127-988-81	CERAMIC CHIP	0.015uF	10%	16V
C2810	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2811	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2812	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C2813	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2815	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C2816	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2817	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
* C2818	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V

Ref. No.	Part No.	Description			
C2819	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2822	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C2823	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
* C2824	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
* C2825	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
* C2826	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
* C2827	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
* C2828	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
* C2829	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
* C2832	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
* C2833	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
C2834	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
* C2835	1-112-716-11	CERAMIC CHIP	0.1uF	10%	6.3V
* C2836	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2837	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2838	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C2839	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C2840	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C2841	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2842	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C2843	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C2844	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C2845	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2847	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
* C3001	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
* C3002	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3004	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3005	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V
C3009	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V
C3012	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3013	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3014	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3015	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C3017	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3018	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C3019	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3022	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3023	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3024	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3025	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C3026	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C3027	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C3028	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C3101	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3102	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3103	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3104	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3105	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
* C3106	1-100-741-81	CERAMIC CHIP	560PF	5%	50V
C3108	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C3110	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3112	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C3113	1-125-889-11	CERAMIC CHIP	2.2uF	10%	10V
C3114	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C3116	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3304	1-100-786-91	TANTAL. CHIP	22uF	20%	6.3V
C3305	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			
* C4003	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
C4006	1-164-860-11	CERAMIC CHIP	27PF	5%	50V
C4013	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C4014	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C4015	1-164-933-11	CERAMIC CHIP	220PF	10%	50V
C4016	1-164-933-11	CERAMIC CHIP	220PF	10%	50V
C4601	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
* C4602	1-112-298-91	CERAMIC CHIP	1uF	10%	16V
C4604	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C4605	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C4606	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C4715	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C4717	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4719	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4720	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4721	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
* C4722	1-112-298-91	CERAMIC CHIP	1uF	10%	16V
C4724	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C4725	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C4726	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4727	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
* C4728	1-112-298-91	CERAMIC CHIP	1uF	10%	16V
* C4730	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
C4732	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C4733	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C4734	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C4735	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C4736	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C4737	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C4738	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C4739	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C4740	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C4741	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C4742	1-100-966-91	CERAMIC CHIP	10uF	20%	10V
C4743	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4744	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4745	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4746	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4747	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4748	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C4750	1-137-988-91	CERAMIC CHIP	1uF	10%	35V
C4751	1-137-988-91	CERAMIC CHIP	1uF	10%	35V
C4755	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4760	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4761	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4762	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4763	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4765	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4766	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C4767	1-164-942-11	CERAMIC CHIP	0.0068uF	10%	16V
C4768	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C4770	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C4773	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4775	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4776	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4777	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4780	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V

Ref. No.	Part No.	Description			
C4786	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4788	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C4790	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C4791	1-164-935-11	CERAMIC CHIP	470PF	10%	50V
C4794	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
		(XR500V/XR500VE/XR520V/XR520VE)			
C4795	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
		(XR500V/XR500VE/XR520V/XR520VE)			
C4796	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
		(XR500V/XR500VE/XR520V/XR520VE)			
C4901	1-119-750-11	TANTAL. CHIP	22uF	20%	6.3V
C4906	1-164-852-11	CERAMIC CHIP	12PF	5%	50V
* C4907	1-128-965-11	CERAMIC CHIP	13PF	5%	50V
C4908	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C4909	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4910	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4911	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4912	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4913	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C4917	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C4919	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C4920	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
		(XR500V/XR500VE/XR520V/XR520VE)			
		< CONNECTOR >			
* CN3302	1-820-729-61	CONNECTOR, FPC (ZIF) 51P			
* CN4001	1-820-857-81	CONNECTOR, FPC (ZIF) 51P			
CN4002	1-821-497-11	CONNECTOR, BOARD TO BOARD			
* CN4003	1-822-379-11	CONNECTOR, BOARD TO BOARD 80P			
* CN4004	1-821-858-51	CONNECTOR, FPC (LIF (NON-ZIF))			
CN4005	1-816-646-61	FFC/FPC CONNECTOR (LIF) 16P			
* CN4006	1-820-031-51	CONNECTOR, FPC (LIF (NON-ZIF))			
CN4007	1-816-645-61	FFC/FPC CONNECTOR (LIF) 14P			
* CN4008	1-820-031-51	CONNECTOR, FPC (LIF (NON-ZIF))			
CN4009	1-818-087-51	CONNECTOR, FFC/FPC (LIF) 26P			
		< DIODE >			
D2702	6-500-854-01	DIODE 1SS413 (TPL3)			
* D4001	6-501-961-01	DIODE MAZS120G08S0			
D4604	8-719-074-08	DIODE MA4ZD03001S0			
D4605	8-719-421-67	DIODE MA132WK			
		< FUSE >			
⚠*F4601	1-523-026-31	FUSE (0.25A/32V)			
⚠F4602	1-576-406-31	FUSE (1.4A/32V)			
⚠F4603	1-576-406-31	FUSE (1.4A/32V)			
⚠F4604	1-576-406-31	FUSE (1.4A/32V)			
⚠F4605	1-576-406-31	FUSE (1.4A/32V)			
⚠F4606	1-576-406-31	FUSE (1.4A/32V)			
⚠*F4607	1-523-026-31	FUSE (0.25A/32V)			
⚠*F4608	1-576-843-31	FUSE (0.8A/32V)			
		< FERRITE BEAD >			
FB2601	1-400-619-11	BEAD, FERRITE (CHIP) (1608)			
FB2801	1-400-331-11	FERRITE, EMI (SMD) (1005)			
FB4001	1-500-238-11	BEAD, FERRITE (CHIP) (1608)			
FB4002	1-500-238-11	BEAD, FERRITE (CHIP) (1608)			

• Refer to page 5-1 for mark ⚠.

Ref. No.	Part No.	Description	
		< IC >	
* IC2401	6-709-936-01	IC	R8A01015ABGTLV
IC2601	6-711-003-01	IC	T6UL2XBG-0002 (EO2)
* IC2602	6-708-457-01	IC	R1114Q151D-TR-FA
* IC2701	6-713-468-01	IC	ADV7521NKBCBZRL-80
IC2702	6-705-337-01	IC	TK11150CSCL-G
* IC2801	6-713-028-01	IC	NN12926A-BB
IC3001	6-707-725-01	IC	BH7875GLU-E2
* IC3002	6-712-999-01	IC	AN12976A-PB
* IC3101	8-753-242-26	IC	CXM3018GA-T2
* IC3301	6-712-050-01	IC	SN65LVDS301ZQER
* IC4701	6-808-414-01	IC	MB44C017ABGF-G-ERE1
* IC4706	6-712-910-01	IC	NJM2878F4-46 (TE2)
IC4707	6-702-302-01	IC	TK11133CSCL-G (XR500V/XR500VE/XR520V/XR520VE)
* IC4901	6-808-551-01	IC	MB95005ABGL-G-120-ERE1
		< COIL >	
L2701	1-400-588-11	INDUCTOR	10uH
L2702	1-400-588-11	INDUCTOR	10uH
L2703	1-400-588-11	INDUCTOR	10uH
L2801	1-400-588-11	INDUCTOR	10uH
L2802	1-400-588-11	INDUCTOR	10uH
L2803	1-400-588-11	INDUCTOR	10uH
L3001	1-400-588-11	INDUCTOR	10uH
* L3101	1-481-425-21	INDUCTOR	10uH
* L3102	1-481-425-21	INDUCTOR	10uH
* L3103	1-481-425-21	INDUCTOR	10uH
L3302	1-400-588-11	INDUCTOR	10uH
L4001	1-400-135-11	INDUCTOR	1uH
L4701	1-456-135-11	INDUCTOR	4.7uH
L4702	1-456-135-11	INDUCTOR	4.7uH
L4703	1-456-135-11	INDUCTOR	4.7uH
L4704	1-456-135-11	INDUCTOR	4.7uH
* L4705	1-457-522-21	INDUCTOR	4.7uH
L4706	1-456-135-11	INDUCTOR	4.7uH
* L4708	1-457-647-11	INDUCTOR	100uH
L4710	1-400-676-11	INDUCTOR	22uH
* L4712	1-481-240-11	INDUCTOR	1uH
L4713	1-400-135-11	INDUCTOR	1uH
L4714	1-469-757-21	INDUCTOR	10uH
L4718	1-400-588-11	INDUCTOR	10uH
* L4726	1-400-674-21	INDUCTOR	4.7uH
L4727	1-400-135-11	INDUCTOR	1uH
L4728	1-469-966-21	INDUCTOR	1uH
* L4730	1-481-240-11	INDUCTOR	1uH
L4735	1-400-675-11	INDUCTOR	10uH
L4740	1-400-588-11	INDUCTOR	10uH
		< LINE FILTER >	
LF2701	1-457-223-11	COMMON MODE CHOKE COIL	
LF2702	1-457-223-11	COMMON MODE CHOKE COIL	
LF2703	1-457-223-11	COMMON MODE CHOKE COIL	
LF2704	1-457-223-11	COMMON MODE CHOKE COIL	
		< TRANSISTOR >	
* Q2704	6-551-852-01	TRANSISTOR	UP04313G08S0
Q2801	8-729-056-75	TRANSISTOR	MCH3211-TL-E
* Q3101	6-551-870-01	TRANSISTOR	UP04601G08S0
Q3301	6-550-180-01	TRANSISTOR	SSM6N16FE (TPLR3)
* Q4001	6-551-766-01	TRANSISTOR	UNR32A3G0LS0
Q4601	8-729-043-60	TRANSISTOR	CPH6102-TL-E
Q4602	6-550-119-01	TRANSISTOR	DTC144EMFS6T2L
* Q4603	6-552-123-01	TRANSISTOR	ECH8652-S-TL-H
Q4604	6-550-119-01	TRANSISTOR	DTC144EMFS6T2L
Q4605	6-551-184-01	TRANSISTOR	MCH6305-TL-E-S
* Q4702	6-552-054-01	TRANSISTOR	SCH2825-TL-E
Q4707	6-551-536-01	TRANSISTOR	ECH8402-S-TL-E
Q4708	8-729-055-88	TRANSISTOR	MCH3406-TL-E
Q4709	6-550-243-01	TRANSISTOR	DTC144TMFS6T2L
* Q4710	6-551-758-01	TRANSISTOR	2SC5846G0LS0
Q4711	8-729-055-88	TRANSISTOR	MCH3406-TL-E
Q4713	6-550-025-01	TRANSISTOR	EMD12T2R
* Q4901	6-551-852-01	TRANSISTOR	UP04313G08S0
		< RESISTOR >	
R2405	1-218-953-11	METAL CHIP	1K 5% 1/16W
R2407	1-218-960-11	METAL CHIP	3.9K 5% 1/16W
R2408	1-218-944-11	METAL CHIP	180 5% 1/16W
R2409	1-218-944-11	METAL CHIP	180 5% 1/16W
R2410	1-218-960-11	METAL CHIP	3.9K 5% 1/16W
R2411	1-218-944-11	METAL CHIP	180 5% 1/16W
R2412	1-218-960-11	METAL CHIP	3.9K 5% 1/16W
R2413	1-208-873-81	METAL CHIP	270 0.5% 1/16W
R2414	1-208-873-81	METAL CHIP	270 0.5% 1/16W
R2415	1-208-873-81	METAL CHIP	270 0.5% 1/16W
R2416	1-208-709-11	METAL CHIP	12K 0.5% 1/16W
R2604	1-218-935-11	METAL CHIP	33 5% 1/16W
R2718	1-218-970-11	METAL CHIP	27K 5% 1/16W
R2727	1-218-935-11	METAL CHIP	33 5% 1/16W
R2728	1-218-935-11	METAL CHIP	33 5% 1/16W
R2729	1-218-935-11	METAL CHIP	33 5% 1/16W
R2730	1-218-935-11	METAL CHIP	33 5% 1/16W
R2731	1-218-935-11	METAL CHIP	33 5% 1/16W
R2732	1-218-935-11	METAL CHIP	33 5% 1/16W
R2733	1-218-935-11	METAL CHIP	33 5% 1/16W
R2734	1-218-935-11	METAL CHIP	33 5% 1/16W
R2741	1-218-973-11	METAL CHIP	47K 5% 1/16W
R2759	1-240-703-91	METAL CHIP	4.7K 5% 1/20W
R2760	1-240-703-91	METAL CHIP	4.7K 5% 1/20W
R2761	1-240-820-11	METAL CHIP	33K 0.5% 1/20W
* R2762	1-240-783-91	METAL CHIP	910 0.5% 1/20W
R2801	1-208-691-11	METAL CHIP	2.2K 0.5% 1/16W
R2802	1-208-691-11	METAL CHIP	2.2K 0.5% 1/16W
R2803	1-208-691-11	METAL CHIP	2.2K 0.5% 1/16W
R2804	1-218-949-11	METAL CHIP	470 5% 1/16W
R2805	1-218-973-11	METAL CHIP	47K 5% 1/16W
R2806	1-218-961-11	METAL CHIP	4.7K 5% 1/16W
R2807	1-218-961-11	METAL CHIP	4.7K 5% 1/16W
R2808	1-218-941-81	METAL CHIP	100 5% 1/16W
R2809	1-218-941-81	METAL CHIP	100 5% 1/16W
R2810	1-218-977-11	METAL CHIP	100K 5% 1/16W
R2812	1-220-169-11	METAL CHIP	75 5% 1/16W
R2813	1-220-169-11	METAL CHIP	75 5% 1/16W

Ref. No.	Part No.	Description			
R2814	1-220-169-11	METAL CHIP	75	5%	1/16W
R2815	1-218-971-11	METAL CHIP	33K	5%	1/16W
R2817	1-218-969-11	METAL CHIP	22K	5%	1/16W
R2818	1-218-969-11	METAL CHIP	22K	5%	1/16W
R2821	1-218-971-11	METAL CHIP	33K	5%	1/16W
R3001	1-208-703-11	METAL CHIP	6.8K	0.5%	1/16W
R3002	1-208-703-11	METAL CHIP	6.8K	0.5%	1/16W
R3003	1-218-953-11	METAL CHIP	1K	5%	1/16W
R3004	1-218-953-11	METAL CHIP	1K	5%	1/16W
R3013	1-218-935-11	METAL CHIP	33	5%	1/16W
R3014	1-218-935-11	METAL CHIP	33	5%	1/16W
R3015	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R3016	1-218-978-11	METAL CHIP	120K	5%	1/16W
R3017	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R3018	1-218-978-11	METAL CHIP	120K	5%	1/16W
R3102	1-208-931-11	METAL CHIP	68K	0.5%	1/16W
R3106	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R3108	1-218-965-11	METAL CHIP	10K	5%	1/16W
R3113	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W
R3114	1-208-687-11	METAL CHIP	1.5K	0.5%	1/16W
R3116	1-208-691-11	METAL CHIP	2.2K	0.5%	1/16W
R3117	1-208-861-81	METAL CHIP	82	0.5%	1/16W
R3119	1-218-941-81	METAL CHIP	100	5%	1/16W
R3120	1-218-941-81	METAL CHIP	100	5%	1/16W
R3302	1-218-973-11	METAL CHIP	47K	5%	1/16W
R3303	1-218-973-11	METAL CHIP	47K	5%	1/16W
R3305	1-218-973-11	METAL CHIP	47K	5%	1/16W
R3307	1-218-973-11	METAL CHIP	47K	5%	1/16W
R3308	1-218-973-11	METAL CHIP	47K	5%	1/16W
R3309	1-218-973-11	METAL CHIP	47K	5%	1/16W
R4009	1-218-965-11	METAL CHIP	10K	5%	1/16W
R4012	1-218-945-11	METAL CHIP	220	5%	1/16W
R4017	1-218-953-11	METAL CHIP	1K	5%	1/16W
R4607	1-216-797-11	METAL CHIP	10	5%	1/10W
R4608	1-218-953-11	METAL CHIP	1K	5%	1/16W
R4609	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R4613	1-218-965-11	METAL CHIP	10K	5%	1/16W
R4617	1-218-989-11	METAL CHIP	1M	5%	1/16W
R4618	1-218-953-11	METAL CHIP	1K	5%	1/16W
R4707	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R4709	1-218-985-11	METAL CHIP	470K	5%	1/16W
R4710	1-218-985-11	METAL CHIP	470K	5%	1/16W
R4711	1-218-965-11	METAL CHIP	10K	5%	1/16W
R4712	1-218-977-11	METAL CHIP	100K	5%	1/16W
R4728	1-208-927-11	METAL CHIP	47K	0.5%	1/16W
R4731	1-218-941-81	METAL CHIP	100	5%	1/16W
R4735	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R4755	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R4760	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R4763	1-242-967-81	METAL CHIP	1	5%	1/16W
R4777	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R4778	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R4797	1-208-635-11	METAL CHIP	10	0.5%	1/16W
R4910	1-218-990-81	SHORT CHIP	0		
R4911	1-245-604-11	METAL CHIP	10M	5%	1/16W
R4913	1-208-893-11	METAL CHIP	1.8K	0.5%	1/16W
R4915	1-208-703-11	METAL CHIP	6.8K	0.5%	1/16W

Ref. No.	Part No.	Description			
R4916	1-218-973-11	METAL CHIP	47K	5%	1/16W
R4917	1-218-953-11	METAL CHIP	1K	5%	1/16W
R4927	1-218-973-11	METAL CHIP	47K	5%	1/16W
R4929	1-218-985-11	METAL CHIP	470K	5%	1/16W
R4930	1-218-989-11	METAL CHIP	1M	5%	1/16W
R4933	1-208-927-11	METAL CHIP	47K	0.5%	1/16W
R4934	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R4943	1-218-965-11	METAL CHIP	10K	5%	1/16W
R4944	1-218-953-11	METAL CHIP	1K	5%	1/16W
R4948	1-218-949-11	METAL CHIP	470	5%	1/16W
R4949	1-218-965-11	METAL CHIP	10K	5%	1/16W
R4950	1-218-965-11	METAL CHIP	10K	5%	1/16W
R4951	1-218-985-11	METAL CHIP	470K	5%	1/16W
		(XR500V/XR500VE/XR520V/XR520VE)			
R4952	1-218-977-11	METAL CHIP	100K	5%	1/16W
		(XR500V/XR500VE/XR520V/XR520VE)			
R4953	1-218-977-11	METAL CHIP	100K	5%	1/16W
R4956	1-218-980-11	METAL CHIP	180K	5%	1/16W
R4957	1-218-977-11	METAL CHIP	100K	5%	1/16W
R4958	1-218-965-11	METAL CHIP	10K	5%	1/16W
R4961	1-218-977-11	METAL CHIP	100K	5%	1/16W
		(XR500V/XR500VE/XR520V/XR520VE)			
R4962	1-218-990-81	SHORT CHIP	0		
		(XR500/XR500E/XR520/XR520E)			
R4963	1-218-981-91	METAL CHIP	220K	5%	1/16W
		(XR500V/XR500VE/XR520V/XR520VE)			
		< COMPOSITION CIRCUIT BLOCK >			
RB2702	1-234-375-21	RES, NETWORK	1K (1005X4)		
RB4902	1-234-375-21	RES, NETWORK	1K (1005X4)		
		< VARISTOR >			
* VD4001	1-802-251-21	CHIP VARISTOR			
* VD4002	1-802-251-21	CHIP VARISTOR			
* VD4003	1-802-251-21	CHIP VARISTOR			
* VD4004	1-802-251-21	CHIP VARISTOR			
* VD4005	1-802-251-21	CHIP VARISTOR			
* VD4007	1-802-251-21	CHIP VARISTOR			
		< VIBRATOR >			
X4901	1-781-525-11	VIBRATOR, CRYSTAL (32.768kHz)			

Ref. No.	Part No.	Description			
	A-1702-502-A	PD-381 BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C5901	1-100-581-00	CERAMIC CHIP	0.0047uF	10%	50V
C5902	1-100-581-00	CERAMIC CHIP	0.0047uF	10%	50V
C5903	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V
C5905	1-100-786-91	TANTAL. CHIP	22uF	20%	6.3V
C5907	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5909	1-165-875-11	CERAMIC CHIP	10uF	10%	10V
C5912	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5913	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V
C5914	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C5915	1-127-861-11	CERAMIC CHIP	2.2uF	10%	16V
C5917	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C5918	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V
C5919	1-112-300-91	CERAMIC CHIP	4.7uF	10%	10V
C5920	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C5921	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C5922	1-127-861-11	CERAMIC CHIP	2.2uF	10%	16V
C5923	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C5924	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C5925	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C5926	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C5927	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
* C5928	1-112-746-11	CERAMIC CHIP	4.7uF	10%	6.3V
C5930	1-125-889-11	CERAMIC CHIP	2.2uF	10%	10V
C5932	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
		< CONNECTOR >			
* CN5901	1-821-202-81	CONNECTOR, FPC (ZIF) 45P			
* CN5902	1-794-322-51	FFC/CONNECTOR, FPC (ZIF) 6P			
CN5903	1-816-654-61	FFC/FPC CONNECTOR (LIF) 6P			
* CN5905	1-794-322-51	FFC/CONNECTOR, FPC (ZIF) 6P			
* CN5906	1-818-818-81	CONNECTOR, FPC (ZIF) 29P			
* CN5907	1-817-942-81	CONNECTOR, FPC (ZIF) 39P			
CN5909	1-816-654-61	FFC/FPC CONNECTOR (LIF) 6P (XR500V/XR500VE/XR520V/XR520VE) (Note)			
		< DIODE >			
* D5903	6-502-150-01	DIODE MA2SD320G8S0			
* D5904	6-502-150-01	DIODE MA2SD320G8S0			
		< IC >			
* IC5901	6-712-051-01	IC SN65LVDS302ZQER			
		< COIL >			
L5901	1-400-588-11	INDUCTOR	10uH		
L5902	1-400-588-11	INDUCTOR	10uH		
L5903	1-400-588-11	INDUCTOR	10uH		
		< TRANSISTOR >			
Q5901	8-729-427-37	TRANSISTOR	XP411F-TXE		
Q5902	8-729-427-67	TRANSISTOR	XP421F-TXE		
		< RESISTOR >			
R5901	1-218-957-11	METAL CHIP	2.2K	5%	1/16W
R5902	1-218-955-11	METAL CHIP	1.5K	5%	1/16W
R5903	1-218-954-11	METAL CHIP	1.2K	5%	1/16W
R5909	1-218-973-11	METAL CHIP	47K	5%	1/16W
R5913	1-218-973-11	METAL CHIP	47K	5%	1/16W
R5914	1-218-973-11	METAL CHIP	47K	5%	1/16W
R5916	1-218-973-11	METAL CHIP	47K	5%	1/16W
R5919	1-218-973-11	METAL CHIP	47K	5%	1/16W
R5921	1-218-973-11	METAL CHIP	47K	5%	1/16W
R5923	1-218-965-11	METAL CHIP	10K	5%	1/16W
R5928	1-218-965-11	METAL CHIP	10K	5%	1/16W
R5929	1-218-990-81	SHORT CHIP	0		
		< SENSOR >			
* SE5901	1-487-118-11	GMR SENSOR (PANEL NOR/REV DET)			

Note: CN5909 is not mounted on PD-381 board for HDR-XR500/XR500E/XR520/XR520E, but for repair, CN5909 mounted PD-381 board is supplied.

Note: **CN5909はHDR-XR500/XR500E/XR520/XR520Eではマウントされておりませんが、補修用部品としてはCN5909がマウントされたPD-381基板が供給されます。**

Ref. No.	Part No.	Description
	A-1708-606-A	VC-557 BOARD, COMPLETE (SERVICE) (XR500V/XR520V)
	A-1708-607-A	VC-557 BOARD, COMPLETE (SERVICE) (XR500VE/XR520VE)
	A-1708-608-A	VC-557 BOARD, COMPLETE (SERVICE) (XR500/XR520)
	A-1708-613-A	VC-557 BOARD, COMPLETE (SERVICE) (XR500E/XR520E)
		**********

(IC2101 is not supplied, but this is included in VC-557 complete board (service).)

< CAPACITOR >

Ref. No.	Part No.	Description			
C1001	1-112-717-91	CERAMIC CHIP	1uF	10%	6.3V
C1002	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1302	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C1303	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1304	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1305	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1306	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1307	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C1310	1-165-897-11	TANTAL. CHIP	22uF	20%	10V
C1311	1-165-897-11	TANTAL. CHIP	22uF	20%	10V
C1313	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1317	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C1318	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C1319	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C1501	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C1502	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1503	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1504	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1505	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1506	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1507	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1508	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1509	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1510	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1511	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1512	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1513	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1514	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1515	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1516	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1517	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1518	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1519	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1522	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1523	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1524	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1526	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C1527	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C1531	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1532	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1601	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1602	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1603	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1604	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1605	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1701	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C1702	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1703	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C1704	1-164-850-11	CERAMIC CHIP	10PF	0.5PF	50V
C1705	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V
C1706	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C1707	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V
C1708	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1713	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C1714	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V
C1715	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C1716	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C1718	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C1720	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C1722	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2001	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2002	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2003	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2004	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2006	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2008	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2011	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2013	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2014	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2015	1-127-760-11	CERAMIC CHIP	4.7uF	10%	6.3V
C2016	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2017	1-128-627-91	CERAMIC CHIP	0.001uF	10%	16V
C2019	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2020	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2022	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2023	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2024	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2025	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2026	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2027	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2029	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2030	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2031	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2032	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2033	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2034	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2036	1-164-937-11	CERAMIC CHIP	0.001uF	10%	50V
C2037	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2101	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2102	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2103	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2104	1-125-889-11	CERAMIC CHIP	2.2uF	10%	10V
C2105	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2106	1-131-862-91	TANTAL. CHIP	47uF	20%	4V
C2107	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2108	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2109	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2205	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C2206	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2207	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2208	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2209	1-165-884-11	CERAMIC CHIP	2.2uF	10%	6.3V
C2210	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

Ref. No.	Part No.	Description			
C2211	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2212	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2217	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C2218	1-100-611-91	CERAMIC CHIP	22uF	20%	6.3V
C2219	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2220	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2224	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2225	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2228	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2229	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2231	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2233	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2235	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2236	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2239	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2240	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2242	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2301	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C2302	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2303	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2304	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C2305	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3202	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C3203	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
C3204	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
C3205	1-119-923-11	CERAMIC CHIP	0.047uF	10%	10V
C3206	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C3207	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3208	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5202	1-165-897-11	TANTAL. CHIP	22uF	20%	10V
C5204	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C5205	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5208	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5209	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5213	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C5214	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5219	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C5220	1-107-819-11	CERAMIC CHIP	0.022uF	10%	16V
C5228	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5229	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5231	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5234	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5236	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5237	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C5238	1-164-940-11	CERAMIC CHIP	0.0033uF	10%	16V
C5239	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C5242	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C5506	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
C5509	1-164-939-11	CERAMIC CHIP	0.0022uF	10%	50V
* C5511	1-112-298-91	CERAMIC CHIP	1uF	10%	16V
* C5512	1-112-298-91	CERAMIC CHIP	1uF	10%	16V
C5514	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5515	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5518	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5519	1-100-567-81	CERAMIC CHIP	0.01uF	10%	25V
C5522	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5527	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5528	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5529	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5532	1-137-934-91	TANTAL. CHIP	47uF	20%	10V
C5533	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
C5534	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5536	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5537	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V
C5538	1-125-777-11	CERAMIC CHIP	0.1uF	10%	10V

< CONNECTOR >

CN1001	1-779-332-51	CONNECTOR, FFC/FPC 16P	
* CN1002	1-821-501-11	CONNECTOR, FPC (ZIF) 51P	
* CN1003	1-779-327-51	CONNECTOR, FFC/FPC 6P	
* CN1004	1-779-331-51	CONNECTOR, FFC/FPC 14P	
* CN1005	1-820-031-51	CONNECTOR, FPC (LIF (NON-ZIF)) (CPC)	
CN1006	1-821-497-11	CONNECTOR, BOARD TO BOARD	
CN1007	1-821-497-11	CONNECTOR, BOARD TO BOARD	
* CN1008	1-820-857-81	CONNECTOR, FPC (ZIF) 51P	
* CN1301	1-819-781-61	CONNECTOR, FPC (ZIF) 45P	
CN5601	1-779-328-51	CONNECTOR, FFC/FPC 8P	

< DIODE >

D1301	8-719-074-08	DIODE	MA4ZD03001S0
* D5501	6-502-136-01	DIODE	MA2ZD020GLS0

< FERRITE BEAD >

FB1802	1-469-580-21	INDUCTOR, FERRITE BEAD (1005)

< IC >

* IC1001	6-708-445-01	IC	R1114Q291D-TR-FA
* IC1002	6-711-739-01	IC	TC7WG126FK (XR500V/XR500VE/XR520V/XR520VE)
* IC1301	8-753-303-68	IC	CXD4214GG-T6
IC1303	6-705-881-01	IC	HD74ALVC1G125VSE-E
* IC1601	6-712-945-01	IC	K4X56323PI-8GC6TJR
* IC1701	8-753-284-01	IC	CXD4212AGG-TL (XR500/XR500V/XR520/XR520V)
* IC1701	8-753-300-16	IC	CXD4218GG-TL (XR500E/XR500VE/XR520E/XR520VE)
IC1702	6-708-511-01	IC	TC7SG08AFS
IC2101	(Not supplied)	IC	K5R1G13ACD-AK60T
(IC2101 is supplied included in VC-557 complete board (service).)			
* IC2201	8-753-302-84	IC	CXD4113GG-T6
* IC2301	6-712-945-01	IC	K4X56323PI-8GC6TJR
* IC5201	6-808-503-01	IC	BU24130GU-E2
* IC5202	6-708-444-01	IC	R1114Q281D-TR-FA
* IC5501	6-713-274-01	IC	R2J30502LG

< COIL >

L1301	1-400-588-11	INDUCTOR	10uH
L1302	1-400-353-21	INDUCTOR	22uH
L1501	1-400-588-11	INDUCTOR	10uH
L1502	1-400-588-11	INDUCTOR	10uH

< TRANSISTOR >

Q1001	6-550-232-01	TRANSISTOR	2SA2029FS6T2LQ/R
Q1002	6-550-102-01	TRANSISTOR	2SC5663T2L
* Q1701	6-551-771-01	TRANSISTOR	UNR31AFG0LS0

Ref. No.	Part No.	Description			
Q5601	6-550-384-01	TRANSISTOR	DTC123JMFS6T2L		
		< RESISTOR >			
R1001	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R1002	1-218-948-11	METAL CHIP	390	5%	1/16W
R1004	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1006	1-216-801-11	METAL CHIP	22	5%	1/10W
R1007	1-216-801-11	METAL CHIP	22	5%	1/10W
R1011	1-218-959-11	METAL CHIP	3.3K	5%	1/16W
R1012	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R1013	1-218-954-11	METAL CHIP	1.2K	5%	1/16W
R1018	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
					(XR500E/XR520E)
R1018	1-218-977-11	METAL CHIP	100K	5%	1/16W
					(XR500/XR520)
R1018	1-218-990-81	SHORT CHIP	0	(XR500VE/XR520VE)	
R1019	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
					(XR500/XR520)
R1019	1-218-977-11	METAL CHIP	100K	5%	1/16W
					(XR500E/XR520E)
R1019	1-218-990-81	SHORT CHIP	0	(XR500V/XR520V)	
R1020	1-240-678-91	METAL CHIP	33	5%	1/20W
R1021	1-240-678-91	METAL CHIP	33	5%	1/20W
R1022	1-240-678-91	METAL CHIP	33	5%	1/20W
R1023	1-240-678-91	METAL CHIP	33	5%	1/20W
R1024	1-240-678-91	METAL CHIP	33	5%	1/20W
R1025	1-240-678-91	METAL CHIP	33	5%	1/20W
R1026	1-240-678-91	METAL CHIP	33	5%	1/20W
R1027	1-240-678-91	METAL CHIP	33	5%	1/20W
R1028	1-240-678-91	METAL CHIP	33	5%	1/20W
R1029	1-240-678-91	METAL CHIP	33	5%	1/20W
R1030	1-240-678-91	METAL CHIP	33	5%	1/20W
R1031	1-240-678-91	METAL CHIP	33	5%	1/20W
R1032	1-240-678-91	METAL CHIP	33	5%	1/20W
R1033	1-240-678-91	METAL CHIP	33	5%	1/20W
R1034	1-240-678-91	METAL CHIP	33	5%	1/20W
R1035	1-240-678-91	METAL CHIP	33	5%	1/20W
R1036	1-240-678-91	METAL CHIP	33	5%	1/20W
R1037	1-240-678-91	METAL CHIP	33	5%	1/20W
R1038	1-240-678-91	METAL CHIP	33	5%	1/20W
R1039	1-240-678-91	METAL CHIP	33	5%	1/20W
R1040	1-240-678-91	METAL CHIP	33	5%	1/20W
R1041	1-240-682-91	METAL CHIP	82	5%	1/20W
R1042	1-240-676-91	METAL CHIP	22	5%	1/20W
R1043	1-240-682-91	METAL CHIP	82	5%	1/20W
R1044	1-240-676-91	METAL CHIP	22	5%	1/20W
R1045	1-240-676-91	METAL CHIP	22	5%	1/20W
R1046	1-240-682-91	METAL CHIP	82	5%	1/20W
R1047	1-240-678-91	METAL CHIP	33	5%	1/20W
R1048	1-218-977-11	METAL CHIP	100K	5%	1/16W
					(XR500V/XR500VE/XR520V/XR520VE)
R1302	1-218-941-81	METAL CHIP	100	5%	1/16W
R1304	1-218-990-81	SHORT CHIP	0		
R1307	1-216-025-11	METAL CHIP	100	5%	1/10W
R1308	1-216-025-11	METAL CHIP	100	5%	1/10W
R1313	1-218-977-11	METAL CHIP	100K	5%	1/16W
R1314	1-218-973-11	METAL CHIP	47K	5%	1/16W
R1315	1-218-977-11	METAL CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			
R1316	1-218-977-11	METAL CHIP	100K	5%	1/16W
R1317	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1319	1-218-937-11	METAL CHIP	47	5%	1/16W
R1320	1-218-935-11	METAL CHIP	33	5%	1/16W
R1326	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1327	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1328	1-218-990-81	SHORT CHIP	0		
					(XR500/XR500V/XR520/XR520V)
R1334	1-218-977-11	METAL CHIP	100K	5%	1/16W
R1336	1-218-977-11	METAL CHIP	100K	5%	1/16W
					(XR500E/XR500VE/XR520E/XR520VE)
R1353	1-218-973-11	METAL CHIP	47K	5%	1/16W
R1356	1-218-941-81	METAL CHIP	100	5%	1/16W
R1357	1-218-941-81	METAL CHIP	100	5%	1/16W
R1368	1-218-977-11	METAL CHIP	100K	5%	1/16W
R1372	1-218-990-81	SHORT CHIP	0		
R1704	1-218-990-81	SHORT CHIP	0		
					(XR500E/XR500VE/XR520E/XR520VE)
R1705	1-218-990-81	SHORT CHIP	0		
					(XR500/XR500V/XR520/XR520V)
R1706	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1708	1-220-180-11	METAL CHIP	620	5%	1/16W
R1709	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R1711	1-218-941-11	METAL CHIP	100	5%	1/16W
R1712	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R1713	1-208-683-11	METAL CHIP	1K	0.5%	1/16W
R1716	1-218-937-11	METAL CHIP	47	5%	1/16W
R1717	1-218-935-11	METAL CHIP	33	5%	1/16W
R1718	1-218-990-81	SHORT CHIP	0		
R1720	1-218-933-11	METAL CHIP	22	5%	1/16W
R1728	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1729	1-218-933-11	METAL CHIP	22	5%	1/16W
R1730	1-218-933-11	METAL CHIP	22	5%	1/16W
R1740	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1801	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1815	1-218-941-81	METAL CHIP	100	5%	1/16W
R1820	1-218-942-11	METAL CHIP	120	5%	1/16W
R1832	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1833	1-218-953-11	METAL CHIP	1K	5%	1/16W
R1835	1-218-933-11	METAL CHIP	22	5%	1/16W
R1836	1-218-962-11	METAL CHIP	5.6K	5%	1/16W
R1846	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R1847	1-218-977-11	METAL CHIP	100K	5%	1/16W
R1855	1-218-965-11	METAL CHIP	10K	5%	1/16W
R1856	1-218-965-11	METAL CHIP	10K	5%	1/16W
R2102	1-218-935-11	METAL CHIP	33	5%	1/16W
R2106	1-218-953-11	METAL CHIP	1K	5%	1/16W
R2211	1-218-965-11	METAL CHIP	10K	5%	1/16W
R2218	1-216-809-11	METAL CHIP	100	5%	1/10W
R2219	1-216-809-11	METAL CHIP	100	5%	1/10W
R2245	1-218-953-11	METAL CHIP	1K	5%	1/16W
R2246	1-218-953-11	METAL CHIP	1K	5%	1/16W
R3203	1-218-981-91	METAL CHIP	220K	5%	1/16W
R3204	1-208-933-11	METAL CHIP	82K	0.5%	1/16W
R3205	1-208-933-11	METAL CHIP	82K	0.5%	1/16W
R5203	1-218-961-11	METAL CHIP	4.7K	5%	1/16W
R5204	1-218-961-11	METAL CHIP	4.7K	5%	1/16W

Ref. No.	Part No.	Description			
R5210	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R5218	1-218-990-81	SHORT CHIP	0		
R5255	1-218-958-11	METAL CHIP	2.7K	5%	1/16W
R5256	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W
R5257	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R5265	1-218-958-11	METAL CHIP	2.7K	5%	1/16W
R5266	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W
R5268	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R5285	1-218-965-11	METAL CHIP	10K	5%	1/16W
R5287	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W
R5288	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W
R5289	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W
R5290	1-208-943-11	METAL CHIP	220K	0.5%	1/16W
R5292	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R5293	1-208-941-11	METAL CHIP	180K	0.5%	1/16W
R5294	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R5295	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R5296	1-208-697-11	METAL CHIP	3.9K	0.5%	1/16W
R5297	1-218-990-81	SHORT CHIP	0		
R5298	1-218-958-11	METAL CHIP	2.7K	5%	1/16W
R5299	1-218-958-11	METAL CHIP	2.7K	5%	1/16W
R5501	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R5502	1-216-170-00	METAL CHIP	68	5%	1/8W
R5503	1-208-935-11	METAL CHIP	100K	0.5%	1/16W
R5504	1-208-947-11	METAL CHIP	330K	0.5%	1/16W
R5505	1-208-947-11	METAL CHIP	330K	0.5%	1/16W
R5516	1-216-170-00	METAL CHIP	68	5%	1/8W
R5519	1-208-905-11	METAL CHIP	5.6K	0.5%	1/16W
R5520	1-208-905-11	METAL CHIP	5.6K	0.5%	1/16W
R5524	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R5527	1-208-721-11	METAL CHIP	39K	0.5%	1/16W
R5540	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R5545	1-208-911-11	METAL CHIP	10K	0.5%	1/16W
R5546	1-218-990-81	SHORT CHIP	0		
R5548	1-218-990-81	SHORT CHIP	0		
R5551	1-218-990-81	SHORT CHIP	0		
R5552	1-218-964-11	METAL CHIP	8.2K	5%	1/16W
R5553	1-208-705-11	METAL CHIP	8.2K	0.5%	1/16W
R5554	1-208-933-11	METAL CHIP	82K	0.5%	1/16W
R5555	1-208-933-11	METAL CHIP	82K	0.5%	1/16W
R5558	1-218-990-81	SHORT CHIP	0		
R5569	1-208-909-11	METAL CHIP	8.2K	0.5%	1/16W
R5627	1-218-945-11	METAL CHIP	220	5%	1/16W
		< COMPOSITION CIRCUIT BLOCK >			
RB1701	1-234-375-21	RES, NETWORK	1K (1005X4)		
RB1703	1-234-375-21	RES, NETWORK	1K (1005X4)		
RB1704	1-234-381-21	RES, NETWORK	100K (1005X4)		
* RB1705	1-234-384-21	RES, NETWORK	1M (1005X4)		
RB1706	1-234-378-11	RES, NETWORK	10K (1005X4)		
RB2101	1-234-380-21	RES, NETWORK	47K (1005X4)		
RB2202	1-242-963-21	RES, NETWORK	33 (1005X4)		
RB2203	1-242-963-21	RES, NETWORK	33 (1005X4)		
		< SENSOR >			
* SE3202	1-480-307-41	3 AXIS ACCELEROMETOR (3D G SENSOR)			

Ref. No.	Part No.	Description
		< VIBRATOR >
* X1301	1-814-219-21	QUARTZ CRYSTAL OSCILLATOR (60MHz)
* X1701	1-813-403-81	QUARTZ CRYSTAL OSCILLATOR (12MHz)

HDR-XR500/XR500E/XR500V/XR500VE /XR520/XR520E/XR520V/XR520VE

RMT-835

SONY

LEVEL 3

SERVICE MANUAL

Ver. 1.2 2009.06

US Model
Canadian Model
AEP Model
UK Model
North European Model
E Model
Australian Model
Hong Kong Model
Chinese Model
Korea Model
Tourist Model
Japanese Model

SUPPLEMENT-1

File this supplement with the service manual previously issued.
(09-121)

- **Change of VC-557 Board Schematic Diagrams**
- **Change of VC-557 Board Electrical Parts List**

HDR-XR500/XR500E/XR500V/XR500VE/
XR520/XR520E/XR520V/XR520VE_L3

9-852-656-82

Sony EMCS Co.

2009F0800-1
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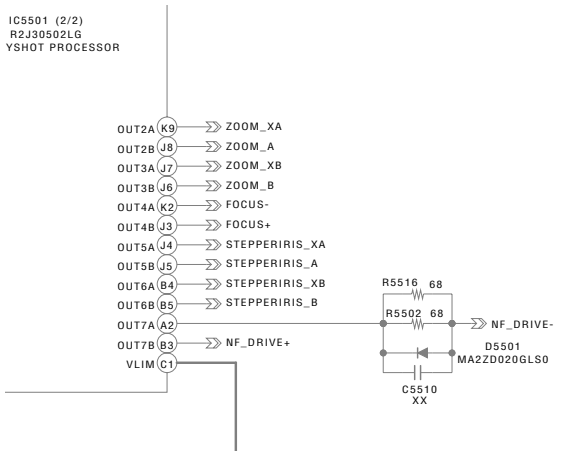
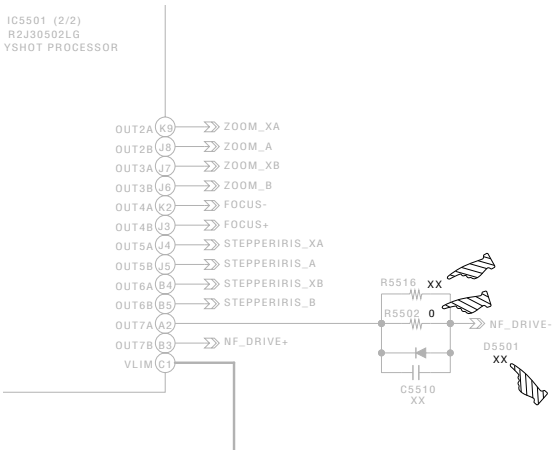
4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

4-2. SCHEMATIC DIAGRAMS

☛: Points changed portion

Page	Before Change	After Change
4-18	**VC-557 BOARD (13/14) Location: C-10 to D-12** 	**VC-557 BOARD (13/14) Location: C-10 to D-12** 

5. REPAIR PARTS LIST

5-2. ELECTRICAL PARTS LIST

☛: Points changed portion
☛: Points deleted portion

Page	Before change	After change
5-26	**VC-557 BOARD** Ref. No. Part No. Description < DIODE > * D5501 6-502-136-01 DIODE MA2ZD020GLS0 ☛	**VC-557 BOARD** Ref. No. Part No. Description < DIODE > _____ _____ _____
5-28	< RESISTOR > R5502 1-216-170-00 METAL CHIP 68 5% 1/8W R5516 1-216-170-00 METAL CHIP 68 5% 1/8W ☛	< RESISTOR > R5502 1-216-296-11 SHORT 0 ☛ _____ _____ _____

Revision History

Ver.	Date	History	Contents	S.M. Rev. issued
1.0	2009.01	Official Release	—	—
1.1	2009.02	Revised-1	• Revision of Printed Wiring Boards and Schematic Diagrams and Repair Parts List. S.M. Revised: Page 4-32, 4-55, 5-19	Yes
1.2	2009.06	Supplement-1 (S1 09-121)	• Change of VC-557 Board SchematicDiagrams • Change of VC-557 Board Electrical Parts List	No